SECTION 01015

SPECIAL ITEMS

PART 1 GENERAL

1.1 SCOPE

Items included in this section cover special features and/or requirements which are not otherwise specified or indicated.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 1527	(1993) Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(1995) Portable Fire Extinguishers

1.3 IDENTIFICATION OF EMPLOYEES

The Contractor shall be responsible for furnishing to each employee, and for requiring each employee engaged on the work to display identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

1.4 SAFETY

1.4.1 Safety Briefing

The Contractor is required to arrange a safety briefing from the

Contracting Officer prior to starting any work on the site. The site representative for the Contractor shall ensure that all workers are aware of the safety aspects of the contract and environmental conditions.

1.4.2 Accident Prevention Plan

The Contractor shall obtain the Contracting Officer's approval of the Accident Prevention Plan, required by EM 385-1-1, prior to start of any work at the project site.

1.4.3 Fire Protection

The Government will provide fire protection. This will be accomplished through the use of the full time DoD Fire Department. The contractor is responsible for all other fire protection requirements. This includes promptly evacuating and taking action as required to correct fire hazards, practices, or noncompliance with specifications reported by employees or identified through surveys. The contractor shall furnish fire extinguishers in facilities provided or constructed by the contractor. The fire department will provide fire extinguishers in existing facilities. The fire department will determine the type, size, and location of extinguishers per NFPA 10.

1.5 SITE LICENSE

The contractor shall complete, sign, submit, obtain approval of, and comply with the Site License attached to this section prior to mobilizing to the job site at Eareckson Air Station.

1.5.1 Utility Outages

The Contractor shall limit the number of power outages to the minimum necessary to complete the work. Each outage shall be limited to 4 hours in duration. Work shall be continuous until completed during each outage. Installation facility personnel will do any switching required. The Contractor shall submit through the Contracting Officer a written request for each outage at least 7 days in advance. The request shall include the following:

a. The date and time of day the outage will start and length of time it will be in effect.

b. A signed statement, in triplicate, outlining each operation and identifying the equipment on which the work is to be performed.

No outage shall be affected until the Contractor has received approval from the Contracting Officer.

1.6 HOT WORK AND WELDING PERMITS

The Contractor shall attend a safety briefing prior to any welding operations. Permits must be obtained for each facility where work is being performed. For activities at Eareckson Air Station the Contractor will be issued hot work permits by the BOS Contractor to be renewed on a mutually

agreeable timetable. Permits for hot work activities at Fort Greely will be handled through the Contracting Officer.

1.7 MATERIAL LOADING, UNLOADING, AND STORAGE

The contractor shall provide its own material loading, unloading and storage areas. The location of these areas must be approved by the Contracting Officer.

1.8 DISPOSITION OF MATERIALS

Combustible and noncombustible waste material shall be disposed of as indicated.

1.8.1 Disposal of Soils

No existing soil stockpile shall be moved from its present location without written permission from the Contracting Officer. No soils shall be removed from the installation for off-site disposition. Soils may be temporarily removed from the installation when approved for off-site remediation. Such soils shall be properly tracked and fully accounted for until returned to the installation and shall not be mixed with other soils at any time.

1.8.2 Salvageable Material

Salvageable material, if not otherwise indicated, shall become the property of the Contractor. The value of such salvage shall be reflected in the contract price.

1.8.3 Construction Debris - Eareckson AS

Construction debris shall be properly disposed of off-site.

1.8.4 Construction Debris - Fort Greely

Construction debris shall be disposed of at an on-site location designated by the Contracting Officer in accordance with installation procedures. Only waste qualifying as inert construction debris (e.g. concrete, asphalt, wood, timber, metal, etc.) may be disposed at this location. Construction debris shall be burned to the greatest extent possible. A list of items to be open burned must be submitted to the Installation Environmental Office through the Contracting officer for review and approval. The Contractor shall comply with the requirements of the Open Burning Policy & Guidelines as published by the State of Alaska Department of Environmental Conservation (attached). All non-compliances must be reported immediately to the Installation Environmental Office through the Contracting Officer. The contractor shall maintain a list of the type of materials burned, including estimated quantity, by date to be submitted to the Contracting Officer as directed.

1.8.4.1 Asbestos Containing Material (ACM)

The contractor will ensure that no ACM will be used by the contractor. The contractor will identify any ACM before conducting any demolition or

repairs of existing facilities and obtain the necessary clearance that materials are not suspected of containing asbestos from the contracting officer. ACM encountered will be disposed of at an approved solid waste disposal facility on the Installation, after direction from the Contracting Officer and in accordance with Federal, State and local law.

1.8.5 Trash Removal

Solid waste of the typical household and office type generated on Fort Greely for this contract may be disposed in dumpsters, provided by the Government at the location of the construction trailers, at no cost. No waste will be brought onto Fort Greely from off-site.

1.8.6 Solid Waste Handling

1.8.6.1 Eareckson AS

Solid waste shall be properly disposed of off-site

1.8.6.2 Fort Greely

Solid wastes shall be disposed of at the existing solid waste landfill in accordance with installation procedures.

1.8.7 Hazardous Material Handling - Eareckson AS

The contractor shall comply with the requirements of 611 ASG Group Instruction 32-1 and Waste Handling Handbook (attached). The contractor shall establish satellite collection areas for temporary storage at or near the point of generation of hazardous waste and provide properly labeled satellite collection containers. The contractor shall transport the hazardous waste from the satellite collection area to a hazardous waste accumulation storage area designated by the Contracting Officer.

1.8.8 Hazardous Material Handling - Fort Greely

The contractor shall establish satellite collection areas for temporary storage at or near the point of generation of hazardous waste and provide properly labeled satellite collection containers. The contractor shall transport the hazardous waste from the satellite collection area to a hazardous waste accumulation storage area designated by the Contracting Officer. The contractor shall provide a waste profile sheet on each waste and, if necessary, submit a hazardous waste stream sample for waste characterization profiling.

1.9 TRANSPORTATION

1.9.1 Personnel Transportation

The Contractor shall notify the Contracting Officer and the JPO Site Activation Command (JSAC) concerning personnel transportation to the site at Eareckson Air Station. Notify the Contracting Officer concerning

personnel transportation at Fort Greely.

1.9.2 Freight Transportation

The Contractor shall be responsible for shipment, delivery and unloading of materials, vehicles and equipment, to Fort Greely and Eareckson Air Station, necessary to complete the work. Materials, vehicles and equipment shall be shipped to both sites prior to actual need to accommodate limited storage area. Fort Greely offers highway transportation; Eareckson Air Station requires air or water transport (seasonal).

1.9.2.1 Notification

The Contractor shall notify the Contracting Officer and the JSAC a minimum of thirty (30) days prior to delivery of materials, vehicles, and equipment.

1.9.3 Transportation Restriction - Eareckson AS

Hazardous materials and hazardous wastes which can be spilled, poured, or could leak or flow into the drinking water supply shall not be transported through the watershed. Hazardous materials are defined as those materials that, due to their chemical, physical or biological nature pose a risk to human health and/or the environment. Hazardous wastes are defined in 40 CFR 261, or as defined by applicable Federal, State and local regulations.

1.10 CAMP FACILITIES

See Section 01501 TEMPORARY CONSTRUCTION FACILITIES AT FORT GREELY, Section 01502 TEMPORARY CONSTRUCTION FACILITIES AT EARECKSON AS (SHEMYA).

1.11 CONTRACTOR-FURNISHED VEHICLE

The Contractor shall provide and maintain up to 4 four-wheel-drive, six-pack type pickups at the Eareckson Air Station job site and 10 at the Fort Greely job site in good repair and approved by the Contracting Officer for use by Government personnel. Transportation for the workers from the camp site to the work site shall be provided by the Contractor. The cost of providing the vehicles, fuel, oil, maintenance and repairs will be reimbursable under this contract. The vehicles shall be in place by start of initial setup work at the job site and maintained through final cleanup. During any down time, an equal substitute vehicle shall be provided immediately.

1.12 CONTRACTOR'S VEHICLES, HEAVY EQUIPMENT, AND FURNISHED VEHICLES

All Contractor vehicles and heavy equipment, including furnished vehicle for Government personnel or their representatives, must be inspected and certified by the Contracting Officer as meeting site safety requirements. Vehicles and equipment shall be maintained and kept in good repair by the Contractor during the course of construction. During construction, any vehicle that becomes inoperable or dangerous and cannot be repaired shall be removed from the island. All vehicles, equipment, and furnished vehicles shall be removed from the island upon completion and final acceptance of the project.

1.13 PARTNERING

The Government intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractors. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance intended to achieve completion within budget, on schedule, and in accordance with plans and specifications.

This partnership will be bilateral in makeup, and participation will be totally voluntary. Any costs associated with effectuating this partnership will be reimbursable under the contract. To implement this partnership initiative, it is anticipated that within 90 days of Notice to Proceed the Contractor's on-site project manager and the Government's on-site representative will attend a partnership development seminar followed by a team-building workshop to be attended by the Contractor's key on-site staff and Government's personnel. Follow-up workshops will be held periodically throughout the duration of the contract as agreed to by the Contractor and the Government.

1.14 NON-GOVERNMENT BORROW SOURCES

The Contractor shall check any non-Government, proposed borrow sources for the presence of hazardous substances and petroleum products as defined in ASTM E 1527. The publication includes guidance on previously examined sites. A Phase I Environmental Site Assessment, also as defined therein, shall be submitted for each proposed borrow site as a supplement to the Environmental Protection Plan specified in SECTION 01411 ENVIRONMENTAL PROTECTION. The report shall identify any previous or current presence of hazardous substances at the site, regardless of whether they have been, or can be, released to the environment. The Assessment shall be performed under the direct supervision of an independent, registered professional engineer, currently licensed by the State in which the borrow source is located, and within such time frame as will ensure reports are valid when submitted. The Engineer shall have a minimum of 3 years experience in performing satisfactory Environmental Site Assessments. All reports shall be certified in writing by the engineer and submitted in the standard format specified in the referenced publication, through the Contracting Officer, to the Base Environmental Office for review. Reports shall be submitted at least 30 days prior to needing borrow materials in the work. The qualifications of the engineer performing the Assessment shall be included with the report. Where hazardous materials are indicated, use of the source will not be allowed. No borrow materials shall be brought onto Government property without approval of the Contracting Officer. The Government reserves the right to sample and test any borrow materials delivered to the project for conformance with this specification.

1.15 ATTACHMENTS

Site License
Climatological Summary Fort Greely - Big Delta
Eareckson AFS Climatological Summary
Waste Handling Handbook

Open Burning Policy and Guidelines
611th ASG Instruction 32-1

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

-- End of Section --

Exhibit 1, Site License

DEPARTMENT OF THE AIR FORCE
SITE LICENSE
EARECKSON AIR FORCE STATION

The Station Commander, Eareckson AFS, Alaska (hereinafter "Commander") by and on behalf of the Air Force grants to _____, (hereinafter "licensee") a license to occupy premises on Eareckson AFS, Alaska for the sole purpose of executing work under Contract No. DACA85-___-C-_____. This license is for the period of the contract, beginning the day the licensee arrives on Eareckson AFS for the purpose of executing work under Contract No. DACA85-___-C-_____ and ending on the final completion of work under Contract No. DACA85-___-C-_____, but revocable for just cause by the Commander. The license is for the premises (to be defined as licensee's construction camp, project site, equipment maintenance site, material storage site, staging areas, transportation routes on the island in execution of the work and all areas the licensee may occupy during its stay on the island) and all vehicle/equipment (to include but not be limited to vehicles, construction equipment of all types and sizes, plant facilities, etc.) required by the licensee in execution of work under Contract No. DACA85-___-C-_____. Licensee camp, staging areas, material storage areas, project site are shown in the contract drawings/specifications and are hereto made part of this instrument.

THIS LICENSE is granted subject to the following conditions:

1. Environmental Indemnification:

a. Definition: For the purpose of this license: (a) The term "Hazardous Material" is defined as any solid, liquid or gaseous substance that poses a unique or categorical hazard to man or the environment. Many common materials in daily use in the home or workplace are hazardous materials. The most comprehensive list of hazardous materials can be found in 49 CFR 172.101, Department of Transportation (DOT) Hazardous Materials Table. (b) The term "Hazardous waste" includes all wastes which are defined in either 40 CFR 261.3 or 18 AAC 62.010. Hazardous waste can be either a listed waste in the EPA regulations, or a waste that displays one or more of the identifying characteristics of ignitibility, corrosivity, reactivity or toxicity. Also, the DOD Consolidated Hazardous Material/Hazardous Waste Disposal Guidance defines a list of "predetermined hazardous wastes."

b. Indemnity: Licensee shall and hereby does indemnify and hold the Air Force harmless from and against any and all costs incurred, claims, demands, expenses, damages (including, without limitation, any consequential damages), losses, liens, liabilities, penalties, fines, taxes, administrative and judicial proceedings and orders, judgements, investigation and remediation costs, remedial action requirements and enforcement actions and attorneys' and consultants' fees and court costs, arising directly or indirectly from or out of, or in any way connected with, (i) the presence or

use, generation, handling, storage, release or disposition after the date hereof of any hazardous materials brought to and/or used on Eareckson AFS, under Contractor's control; (ii) any violation or alleged violation after the date hereof, of any Federal, State or local environmental law, regulation, ordinance or administrative or judicial order relating to hazardous materials; (iii) all foreseeable and all unforeseeable consequences directly or indirectly arising out of the presence or use, generation, handling, storage, release or disposition while under Contractor's control after the date hereof, of hazardous materials by licensee on, under or within the premises; (iv) any required or necessary repair, removal, remediation, cleanup or detoxification and the preparation of any closure or other required plans, whether such action is required or necessary prior to or following relinquishment of the premises, to the full extent that such action is attributable, directly or indirectly, to the presence or use, generation, storage, handling, release, threatened release, or disposal of hazardous materials on the property; or (v) any action taken by the Air Force to enforce the duties, liabilities and obligations of licensee under this Agreement.

c. Notwithstanding anything to the contrary herein, licensee shall not incur any liability under this Agreement on account of any circumstance or any event that licensee can demonstrate, in a manner satisfactory to the Air Force, results exclusively from the actions or omissions of persons other than licensee or its agents or employees.

2. The exercise of the privileges granted shall be:

a. Without liability, cost or expense to the United States;

b. Under the general supervision of the Commander;

c. Subject to the right of the Air Force to construct, use, and maintain facilities on the premises without unreasonably interfering with the licensee's privileges;

d. Subject to other outgrants of the Air Force on the premises which do not unreasonably interfere with the licensee's privileges; and

e. Without liability of the Air Force for failure to supervise or inspect activities or facilities of the licensee.

f. Subject to inspection of licensee's premises/property, for the purpose of determining compliance with this license, at any reasonable time by the Air Force.

3. The licensee at its own expense shall maintain the premises in good order. All structures shall be painted to match the Eareckson AFS color scheme of body and accent colors. Colors are from Federal Standard 595b. The body color is to be #27769 and the trim color is to be #30045. Heavy construction equipment shall be kept in marked designated parking area when not in use on the construction site. Parking areas for all Contractor vehicles will be provided by the licensee. Licensee shall provide and use drip pans or other means of capturing oil/lubricants that drip from construction

equipment/vehicles. Garbage and trash receptacles shall be screened from sight. Trash and garbage must be removed from the camp area to the designated disposal areas on a regular basis. Segregate waste into combustible, noncombustible and aluminum cans. The entire camp area shall have a daily general policing of the grounds to remove any loose trash. All materials to be placed in the landfill shall be scheduled through the Contract Management Office before taken to the landfill.

4. The licensee shall at its own expense promptly repair or replace to the satisfaction of the Commander any United States property damaged or destroyed by the licensee. Instead and if required by the Commander, the licensee shall pay the United States money in an amount sufficient to compensate for the loss sustained by the United States for damage to or destruction of United States property, or for the restoration of United States property to its' previous condition/function, with work accomplished by the Government.

5. The United States and its officers, agents, servants, and employees ("the released parties") shall not be responsible for damages to property, injuries to persons, or any other cause of action ("released actions") which may arise from or be incident to this license or the licensee's exercise of the privileges herein granted. Released actions include, without limitation, damage to the licensee's property, injury to the licensee's person, or other cause of action of the licensee, or such damage, injury or other cause of action of the licensee's officers, agents, servants, employees, invitees of any of these, or anyone else otherwise on or near said premises incident to the license. The licensee shall hold harmless and indemnify the released parties for released actions which may arise from or be incident to this license or the licensee's exercise of the privileges herein granted.

6. The licensee shall not unlawfully pollute the air, ground, or water or create a public nuisance. The licensee shall at no cost to the United States promptly comply with present and future Federal, State and local laws, ordinances, regulations, or instructions controlling the quality of the environment. The licensee shall be responsible for correcting pollution/environmental damage, etc. by employees/companies whose purpose on Eareckson AFS is the execution of work under the contract this license refers to. Licensee shall comply in full with contract specification Sections 01015, and 01130, and these specification sections are hereto made a part of this instrument by reference.

7. The licensee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archeological or other cultural artifacts, relics, vestiges, remains or objects of antiquity. In the event such items are discovered on the premises, the licensee shall immediately notify said officer and protect the site and the material from further disturbance until said officer gives clearance to proceed.

8. Licensee's Vehicles/Equipment:

a. Each vehicle/piece of construction equipment that can be driven on the Eareckson AFS road system shall be registered with the Eareckson AFS Security Police prior to being used to perform work under the contract referred to in this license. The Security Police will register the vehicles/equipment and issue the licensee an identification number. The licensee shall have the name of the company and the identification number

clearly displayed on both sides of the vehicle/equipment at all times. The display shall be either by paint and/or adhesive sign attached to the side, providing it is permanently affixed for the life of this license. The licensee shall not transfer the Eareckson AFS registration of the vehicle/equipment to another person/company. If ownership of a vehicle/piece of equipment changes, the original owner shall turn in the registration to the Security Police and the new owner shall get a new registration and identification number with the approval of the Commander.

b. All vehicles, construction equipment of all sizes and types, furnished vehicles and all equipment used in the execution of work on the contract referred to in this license shall be removed from Eareckson AFS, at the earliest possible time, upon completion and final acceptance of the work under the contract referred to in this license.

9. The licensee will use all reasonable means available to protect the environment and natural resources from damage arising from this license or activities incident to it, and where damage nonetheless occurs, the licensee shall be liable to restore the damaged resources.

10. If the licensee discovers military contamination outside the construction site and limits of construction, the licensee shall immediately notify the Commander.

11. The Contractor must obtain an Air Force Form 103 with signatures and must notify Contract Management not later than three (3) days before removal of trailers or shops from their present location. On or before the date this license expires or the licensee relinquishes this license, the licensee shall vacate the premises, remove the licensee's property and restore the premises to a condition satisfactory to the Commander, except for damages beyond the licensee's control or for fair wear and tear. If this license is revoked, the licensee will do the same within the time designated by the Commander. If the licensee fails or neglects to remove the property and to restore the premises, at the option of the Commander:

a. Said property shall become the property of the United States without compensation therefor, or

b. The Commander will have the property (including but not limited to vehicles, construction equipment of all types and sizes, camp and maintenance facilities, plant facilities, surplus materials, wastes, etc.) removed and the premises restored at the expense of the licensee, and no claim for damages against the United States or its officers or agents shall be created by or made on account of the removal and restoration work.

12. The licensee may terminate this license by giving thirty (30) days written notice to the Commander.

13. This license is effective only insofar as the rights of the United States in the premises are concerned. The licensee shall obtain any further permission necessary of any other existing rights.

This license is not subject to Title 10, United States Code, Section 2662, as amended.

IN WITNESS WHEREOF, I have set my hand by authority/direction of the Secretary of the Air Force this _____ day of _____, 19____ .

_____
Signature

_____
Typed Name, Title

_____

_____
Address

The above instrument, including all its conditions, is hereby accepted this _____ day of _____, 19____.

_____
Signature

_____
Typed Name, Title

_____

_____
Address

CLIMATOLOGICAL SUMMARY

FORT GREELY - BIG DELTA (Period of record exceeds 25 years)

MEANS AND EXTREMES FOR PERIOD OF RECORD

Temperature		Mean Annual	27.5° F
		Highest Recorded	92° F 15 Jun 1969
		Lowest Recorded	-63° F 30 Jan 1947
		Maximum Freezing Index	6029 Degree days
		Maximum Thawing Index	3593 Degree days
Precipitation		Mean Annual	11.4"
		Avg. Annual Snowfall	40.5"
		Maximum Monthly	6.18" July 1945
		Maximum Monthly, Avg.	2.61" July
		Maximum Rainfall During 24 hr Period	2.14" June 1943
		Maximum Snowfall During 24 hr Period	10.0" 29 Dec 1965
		Maximum Monthly Snowfall	29.0" Dec 1955
Wind		Avg. Hourly Speed	8.2 mph
		Prevailing Direction	ESE
		Maximum Velocity	74 mph March 1946
		Direction Maximum Velocity	W
Annual Mean Number of Days	Sunrise to Sunset	Clear	60
		Partly Cloudy	91
		Cloudy	214
		Precipitation 0.01 inch or more	90
		Snow, Sleet, or Hail 1.0 inch or more	15 Snow only
		Heavy Fog	10
		Thunderstorms	3
	Max Temp	≥ 70°	37
		≤ 32°	156
	Min Temp	≤ 32°	223
		≤ Zero	97

NPA Form
AUG 1958

MEANS AND EXTREMES FOR PERIOD OF RECORD

EARECKSON AFS
CLIMATOLOGICAL SUMMARY

(Period of record exceeds 25 years)
Location: 52° 43' N, 174° 06' E

Temperature		Mean Annual	38.3° F
		Highest Recorded	63° F July 1945
		Lowest Recorded	7° F
		Maximum Freezing Index	208° days (1952- 53)
		Mean Thawing Index	2482° days
		Normal ° days	9687° days
Precipitation		Mean Annual	28.2"
		Mean Annual Snowfall	59.0"
		Maximum Monthly	8.79" July 1967
		Maximum Monthly Mean	2.76" October
		Maximum Rainfall During 24 hr Period	5.26" October 1962
		Maximum Snowfall During 24 hr Period	15.3" February 1954
		Maximum Monthly Snowfall	32.8" March 1947
		Mean Max. Monthly Snow	13.7" February
Wind		Mean Hourly Speed	18.3 mph
		Prevailing Direction	WSW
		Peak Gust	139 mph SW (Dec 1959)
Annual Mean Number of Days	Sunrise to Sunset	Clear	5
		Partly Cloudy	58
		Cloudy	302
		Precipitation 0.01 inch or more	213
		Snow, Sleet, or Hail 1.0 inch or more	19
		Heavy Fog	83
		Thunderstorms	0
	Max Temp	≥ 64°	0
		≤ 32°	31
	Min Temp	≤ 32°	125
		≤ 15°	0

NPA Form
AUG 1958

611 ASG

WASTE HANDLING HANDBOOK

A p p e n d i c e s

SECTION I

INSTRUCTION SHEETS

SECTION II

FORMS

SECTION III

TABLES

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GENERAL PROCEDURES

This handbook was developed specifically for use by field personnel in association with 611 ASG projects. Although it is written for contractors performing work for the Air Force, this instruction will also provide guidance for all personnel performing projects at 611 ASG sites. In addition to regulatory information, it contains 611 ASG policy in regards to characterizing, handling, manifesting, and shipping Air Force waste. This instruction is intended to provide limited guidance for third party personnel, specifically contractors working at 611 sites. The material in this handbook is in no way meant to guarantee compliance or replace training as required by the regulations.

1. Waste determination**:**

Identifying the wastes generated and determining if these wastes are considered hazardous waste is fundamental to knowing the scope of the hazardous waste requirements that may apply. RCRA defines a waste as any solid, liquid, or contained gaseous material that you no longer use, and either recycle, throw away, store, treat, dispose of or abandon. Regardless of whether it is liquid, solid, or a compressed gas, these wastes are known in the RCRA regulatory sense as solid waste. RCRA also requires generators of solid waste to immediately determine if their wastes are hazardous waste. Generators are allowed to use knowledge (User Knowledge Statements), Material Safety Data Sheets (MSDS's) and/or testing (laboratory analytical data) (see 40 CFR 262.11(c)(1) and(2)), and must keep records of these determinations. If you fail to determine if the waste is hazardous, then the waste may be managed or accumulated improperly and could also cause a Notice Of Violation (NOV) during an EPA and/or ADEC inspection. There are two ways a waste can be brought into the hazardous waste regulatory system: characteristic, and identification through listing.

1.1. Characteristic wastes: It is the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in 40 CFR 261 Subpart C (see 40 CFR 262.11(c). Even if the waste does not appear on one of the EPA lists, it is considered hazardous if it exhibits one or more of the following characteristics (see 40 CFR 261 Subpart C).

1.1.1. Ignitable wastes are easily combustible or flammable with a flashpoint of less than 140°F. It is an oxidizer as defined by 49 CFR 173.151. Some examples of ignitable wastes are: paints, some fuels, degreasers or other solvents. The EPA waste code for ignitable waste is "D001" (40 CFR 261.23).
Notes: 1) Keep in mind the Department of Transportation defines a flammable liquid as having a flash point £ 141°F and a combustible (in North America)>141°F but <200°F for its regulatory purposes, so as not to be confused by the these two Departments' parameters 2) Definition of an oxidizer is defined in 49 CFR §173.127 not 49 CFR *§173.151 as written in the regulations.*

1.1.2. Corrosive waste dissolves metals or other materials and burns the skin with a pH of <2.0 or >12.5. Some examples of Corrosive wastes are waste rust removers, waste acid or alkaline cleaning fluids, and waste battery acid. The EPA waste code for corrosive wastes is "D002" (40 CFR §261.22).
Note: the Department of Transportation does not use pH as criteria in the determination of "corrosive" as a hazard class (see 49 CFR §173.137). They use test data on the effects and degree of destruction to human tissue and its corrosion rate on steel, not pH. A policy some disposal contractors have as a minimum for classification and packaging criteria for corrosives is a pH £4 and ³10. The contractor should write in the laboratory contract to include appropriate analysis when pH is £4 or ³10 to provide transportation's criteria for proper package selection and hazard class assignments.

1.1.3. Reactive wastes are unstable or undergo rapid or violent chemical reaction with water or other materials. Some examples of reactive wastes are cyanide plating wastes, bleaches and waste oxidizers. The EPA waste code for reactive wastes is "D003" (40 CFR 261.23).

1.1.4. Toxic Characteristic (TC) exceed the maximum regulatory level for certain chemicals including heavy metals pesticides and other volatile compounds when tested using the Toxicity Characteristic Leaching Procedure (TCLP). TC wastes are designated with the waste codes "D004" through "D043" (40 CFR 261.24 Table 1).

1.2. Listed wastes. These wastes are considered hazardous if they appear on any one of four lists in RCRA's hazardous waste regulations. These wastes are listed because they exhibit characteristic hazards, or have been shown to be harmful to humans or the environment (see 40 CFR §261.30 Subpart D).
Note: Mixtures of any listed hazardous waste with other waste will require management of the entire mixture as the listed hazardous waste. Spills of listed hazardous waste that contaminate soils and other debris are also regulated the same as the listed hazardous waste (see 40 CFR §268.3(a).

1.2.1. F listed wastes are considered hazardous based upon the process. *For example spent methylene chloride used as a solvent or in a solvent mixture is a F-listed hazardous waste (see 40 CFR 261.31 Subpart D).*

1.2.2. K listed wastes are wastes regulated based upon a specific source. *Tank bottoms (leaded) from the petroleum refining industry is a example of a K-listed waste (see 40 CFR 261.32 Subpart D).*

1.2.3. P listed wastes are regulated because they are a discarded material, off-specification products, container residue or a spill debris that contains a specific compound which is considered acutely hazardous.

Note: P-listed wastes are dangerous, even in small amounts, and are regulated in the same way as larger amounts of other hazardous wastes. Even the containers that held the product are considered a hazardous waste until they are triple rinsed. Endrin and sodium cyanide are examples of P-listed wastes (see 40 CFR §261.33 Subpart D).

1.2.4. U listed wastes are discarded products or spill debris that contain a specific chemical compound which is considered toxic.

Note: Unused waste products such as methylene chloride or acetone are examples of U-listed wastes (see 40 CFR §261.33 Subpart D).

1.3. Determining the wastes characteristics**:**

1.3.1. Material Safety Data Sheets (MSDS's) provided by the manufacturer are the least costly method for waste identification. MSDSs contain all information required for transportation and turn-in along with safety recommendations. MSDSs are useful for unused materials with expired shelf life, overstocked items, unwanted products and partially expended materials that contain product in its original formulation.

- The Department of Defense has an extensive MSDS library on compact disks (CDs), they are called Hazardous Material Control & Management (HMC&M) and Hazardous Material Information System (HMIS). 611 CES Environmental Section has access to this library and may assist in obtaining this information.
- Complete label information collection, i.e. manufacturer name, part number, batch number, date of manufacture is crucial. This information will allow proper selections of products to their respective MSDSs. You may find instances where MSDSs are not on file on the premises or on HMIS diskettes, in this situation a phone call to the manufacturer with product information part number, etc. will usually produce an MSDS which they may fax to you.

Note: Only a MSDS for the specific product can be used in waste turn-in. When MSDS cannot be obtained product sampling is required.

1.3.2. Waste stream profiles are the acceptance document for a waste product at the TSDF. It contains definitive information about the waste that determines its origin, treatment, shipment classification, destination, and waste coding. The 611 ASG will provide the available information regarding existing and expired waste stream profiles. If the proposed TSDFs and/or recycling facilities have existing profiles for 611 ASG waste streams, the renewal of existing profiles will be pursued before establishing new profiles. Profiles shall be established using available MSDSs, laboratory data, and existing profile information provided by the Air Force, whenever possible. 611 ASG profile numbers will be supplied to the contractor for cross reference at the TSDF. Profiles will be reviewed

and signed by authorized Air Force personnel (for an example of a waste stream profile in a DRMO format see Section II of the attached handbook.

1.3.3. User knowledge statements are utilized when a waste product composition is unknown or unclear to the signatory preparing the wastes for turn-in. However, there is a responsible person that has direct knowledge of the products identity and is willing to sign a statement identifying the product to a specific MSDS, analytical report, or an established waste stream. Care shall be exercised in accepting these statements, the signatory of the documentation and the knowledgeable party should both feel comfortable that the statement is both true and accurate.

Note: If you cannot identify your wastes by any of the above means then representative sampling shall be required.

1.3.4. Representative sampling: If wastes cannot be identified and are not listed in subpart D of 40 CFR part 261(F, K, P or U-lists) the generator must then determine whether the waste is identified in subpart C of 40 CFR part 261 (characteristic of a hazardous wastes) by: Testing the waste as prescribed in 40 CFR part 261 Appendix I (representative sampling) (see 40 CFR 262.11(c)(1)).

1.3.4.1. For the purposes of waste identification under RCRA, a sample obtained using any of the applicable sampling methods specified in appendix I is a representative sample (see 40 CFR 261.20(c) and comment section). A hazardous waste that is identified by a characteristic is assigned every EPA Hazardous Waste Number (D001-D043) that applies (see 40 CFR 261.20(b)).

1.3.4.2. The purpose of representative sampling is to describe products or wastes' hazardous properties by collecting a representative sample for laboratory analysis. The laboratory report will identify hazardous constituents as a value, or in a qualitative (as a detection level) or quantitative (usually in parts per million e.g. mg/kg or mg/l) terms. Hazardous values and concentrations exceeding the regulatory limits must be handled, transported and documented in accordance with, and as prescribed by: federal law, DoD, Air Force and DRMO directives.

Note: All decisions and documentation concerning the waste are predicated on the analytical and physical data collected from and during sampling.

2. Accumulation points: The Contractor shall manage on-site accumulation points except on sites managed by Air Force BOS contractors. On sites managed by the BOS Contractor, the third party contractor shall coordinate accumulation activities with the BOS contractor through the Air Force project manager. Sampling, packaging and repackaging activities may take place at waste accumulation points. Accumulation points are the source of many RCRA violations; it is essential for the Contractor to be familiar with accumulation point compliance.

Note: Satellite accumulation point management is the third party Contractor's responsibility.

2.1. If a generator accumulates more than 55 gallons of hazardous waste or one quart of acutely hazardous waste in containers at or near any point of generation, with respect to the amounts in excess of 55 gallons of hazardous waste or one quart of acutely hazardous waste, the generator, within a three (3) day period, must:

- Insure the product has been placed in a container in good condition or transferred to container in good condition or overpacked (see 40 CFR 265.171).
- Insure the selected container was designed to hold the waste (see 40 CFR 265.172). (placing a corrosive liquid in a metal drum would be an example of incorrect container selection.)
- Keep the container tightly closed during storage (see 40 CFR 265.173(a)).
- Mark the container with the words "Hazardous Waste" (see 40 CFR 262.34(c)(ii)).

2.2. Within the three day period and throughout the holding time (holding time is determined by generator status which is based on quantity of hazardous wastes generated monthly and total quantity accumulation on site (see 40 CFR 262.34 chapters (d), (e) and (f) for qualifications) insure the <u>containers</u> are:

- In good condition;
- Made with materials compatible with the waste;
- Remain closed;
- In rows with a minimum of three (3) feet between the rows of containers (see 40 CFR 265.35);
  Note: This is a common violation.
- Inspected weekly, looking for leaks and drum condition;
- At least 15 meters (50 feet) from the facilities property line; If holding ignitable or reactive wastes
- Not stored together, if incompatible, but are separated by a berm, dike, wall or other device (See 40 CFR 265 subpart I);
- Clearly marked with the date the accumulation period begins (see 40 CFR 262.34(2)) and
- Insure the words "Hazardous Waste" or "Non-Hazardous Waste" are clearly marked on the container *(<u>This is a common violation</u>)*.

Note: To avoid a NOV during an inspection, containerized accumulated wastes must be considered and marked as a hazardous waste until a determination by testing, knowledge or MSDS information proves otherwise (see 40 CFR 262.11(c)(1) and (2)).

2.3. Comply with 40 CFR 265 subpart C: Preparedness and Prevention and 40 CFR 265 subpart D: Contingency Plan and Emergency Procedures.
Note: Subparts C and D of 40 CFR part 265 are already in place and in compliance; however, if you suspect a deficiency, report the matter to the accumulation point manager.

3. Sampling: RCRA requires use of Method 1311 Toxic Characterization Leaching Procedure (TCLP). Furthermore, the contractor shall ensure all sample analysis is performed by a state certified laboratory and that the analytical protocols characterize the waste stream sufficiently to meet the criteria for sampling objectives (see paragraph 3.3 and Section I of this handbook).

3.1. Types of samples: There are essentially two types of sampling for waste turn-in:

3.1.1. Composite sample is formed by combining multiple partial samples into one final sample. This method gives you the average concentrations.

3.1.2. Grab sample is taken once. This method gives true concentration value of the sample location at the time of sample collection. When multiple grab samples are collected from separate points, analytical data will illustrate concentration as a range

3.2. Types of contained product and sampling techniques**:**

3.2.1. Bermed and lined earthen cells containing RCRA regulated contaminated soil from a single source. In general, contaminated soils that are stored in this manner are usually due to a release onto the ground. During clean-up efforts, soils excavated may have varied concentrations of contamination depending upon the proximity of excavation to the point of release. The soil stored in the cell will also have areas of high and low concentrations. The analytical data will show the range of contamination present in the cell. Procedural choices includes:

- Three to twenty or more grab samples from separate points (depending on waste volume and the objective of the sampling). For regulatory purposes, more samples would be needed to generate more statistically valid data, such as the equivalent of one sample for every five shipping containers.
  Note: Non-bulk packaging limitations require a maximum net mass of 400 kg (882 pounds) or less and a maximum capacity 450 L (119 gallons) or less as a receptacle for a solid (see 49 CFR 178.8 Definitions, Non-bulk packaging).
- Samples shall be collected from beneath the surface (4” to 24”), filled full and capped immediately to capture volatile and semi-volatile compounds.
  Note: This same process could be utilized if the waste product had been containerized prior to sampling.

3.2.2. Contained liquids sampling goals are to obtain a representative analysis of the entire waste stream. The Contractor shall collect liquid samples which represent the waste stream (proportional amounts of sample which represent the phasal percentages of the waste stream) in sufficient quantity for the laboratory to collect valid data about the waste stream and achieve sampling objectives which may include on-site treatment of non-RCRA wastes.

3.3. Sampling objectives goals are to recycle and/or reclaim wastes whenever practicable and cost effective, by utilizing regulatory incentives (exceptions, exclusions), thus minimizing the waste produced from Air Force sites. Analytical data are to provide sufficient information in order to recycle /reclaim / dispose/treat under RCRA while supplying sufficient data required to properly identify the waste/ material in transportation. Standards for the Management of Used Oil 40 CFR Part 279 and Standards for Universal Waste Management 40 CFR Part 273 are two programs offered by the EPA to help generators with these types of waste streams. Application of these programs reduce regulatory burdens and accomplish waste minimization goals. (See Attachment 6 Sampling Objectives for an example).

4. Container markings for on-site storage. These identifying markings shall be applied to the containers with an indelible marker, such as a paint pen, of a contrasting color on the upper side (not on the top) of the container in approximately 1-inch letters with all markings located together. The containers must be oriented so the information is easily visible upon inspection. Containers shall be marked with identifying information to include the requirements of paragraph 1 as applicable including, but not limited to:

4.1. Container number (obtained from the BOS contractor or HWPM for unmanned sites). Attention shall be given to number individual waste streams contiguously. For example, if the contractor has identified two waste streams totaling 100 containers (40 and 60 each) and the BOS Contractor has given container numbers of 2200 through 2300 to the contractor, then the Contractor should insure the waste stream containing the first 40 containers would be numbered 2200 though 2240 and the remaining waste stream numbers 2241 through 2300.

4.2. Container weight expressed in pounds.

4.3. Sample number/MSDS product description (to include containers numbering identified with the sample or MSDS, i.e. “1 of 4” “2 of 4” etc.).
Example of sample/MSDS number: BKR34500 1 / 4 shows this is one of four sampled containers.
4.4. Phase description of the waste stream expressed in common descriptors (e.g. used oil, water, solvent, tank scale etc.) and approximate percentages.
Note: If the phase is solid, identify the solids make-up in percentages (e.g. ,100% tank bottoms, 40% soil and 60% absorbent, or 100% PPE to name a few).

4.5. Project number. This number will be the Air Force project number that will aid in identifying a particular container and its contents to a contractor POC/Phone number. This project number will be derived from the Air Force A106, AFRIMS, or PCMS systems. The project manager will provide this number.
Note: All CERCLA waste will be marked “CERCLA Derived Waste” or “IDW” (Investigative Derived Wastes). These wastes, while stored and managed at the CERCLA site, are not regulated under RCRA. However, once moved to an accumulation point or off site, they are regulated under RCRA (if contaminates exceed RCRA regulatory values).

5. Conveyance of accumulated wastes information to the Air Force:

5.1. The Contractor shall provide the following information to the HWPM, and/or Project Manager by fax or e-mail, beginning the week of the first containers accumulation start date and updated weekly until the waste/materials are in transportation to designated TSDF/recycler or when the contractual responsibilities have been met. This information shall be in a spreadsheet format and contain the following information:

5.1.1. Header Information:

- Site name.
- Contractors name.
- Contractors point of contact name and number.
- Air Force project number.
- Date the spreadsheet was updated.

5.1.2. Spreadsheet Entries:

Container number/s (see 4.1. and attach 4 section J).

- Accumulation start date.
- Profile number (if known).
- Waste description (see 4.4. Phase Description)
- RCRA regulated (YES/NO/RECYCLABLE/EXEMPT/UNKNOWN)
- Sample number enter: Number if collected, “MSDS” if MSDS is available to characterize product, “NO” if sample has not been collected or “USER KNOWLEDGE” if sampling is not required and MSDS is not available i.e. diesel fuel collected from a tank known to contain this product.
- Lab results enter: “YES” if returned, “NO” if not returned or “N/A” if sample was not collected or is not required
- Number of containers.
- Type of containers: DOT descriptors i.e. 55 G 1A2 (see 49 CFR 178.502) or generic descriptor i.e. 55 gallon open head steel drum.
- Weight: in pounds (total of container and contents) for each container listed.

6. Packaging, marking, labeling, describing and certifying on shipping papers, hazardous materials and or substances offered in transportation.

6.1. The Contractor shall insure employees which have responsibility for compliance with the requirements in 49 CFR, ICAO Technical Instructions and/or IMDG Code and shall, at a minimum, meet the training requirements as stated in 49 CFR 172.704.
Note: This training will not qualify the Haz-Mat employee to sign the certifying statement on a shippers declaration for dangerous goods on military aircraft.

6.2. The Contractor shall use as first preference 49 CFR Parts 100 through 180 when offering dangerous cargo in transportation. ICAO regulations/IATA recommendations may be used only if the air carrier refuses to accept shipments offered under 49 CFR. IMDG Code may be used only if the sea carrier refuses to accept shipments offered under 49 CFR.

6.3. The Contractor shall offer hazardous material in commerce that is in conformance with the applicable regulations, and is properly classed, described, packaged, in a quantity per package and in condition for shipment as required or authorized by applicable requirements of those regulations.

6.4. All container markings and labels shall be placed on the upper third of the container side. Regulatory required markings or labels shall not be applied to the top of any container.
Note If packages containing hazardous materials are palletized the Contractor shall insure packages are oriented so markings and labels are visible while looking at the pallet.

6.5. The Contractor shall supply a qualified signatory for describing and certifying hazardous materials/substances offered in transportation
Note: This applies to non-Military aircraft.

7. Documentation. The Contractor shall accurately prepare all shipping paperwork in accordance with these operating instructions. Shipping paperwork shall include, but not be limited to, the documentation listed below. 611 ASG requires 5 workdays for verification of their accuracy and completeness; upon acceptance, a qualified Air Force representative will sign the documents. In cases where items are added or changed in the field, a copy of the manifest shall be transmitted to the HWPM or his authorized representative The Contractor shall ensure that the Air Force receives typed copies of all shipping papers and that all forms are and free of errors 5 days prior to scheduled shipment. Handwritten papers will not be accepted.
Note: All contractor and/or subcontractor personnel responsible for preparing or reviewing the following documentation (with the exception of the DD Form 1348-1A) shall have received the minimum of training pursuant with the requirements of 49 CFR Parts: 171-179 and training pursuant with 40 CFR Parts: 260, 261, 262, 263, 268.

7.1. DRMO required documentation. DRMO requires all inbound shipments of manifested wastes to be coordinated through the DRMO Environmental Branch (see Section III of attached handbook for POC) to include review of all required documentation including analytical/MSDS/knowledge data before transporting to DRMO. These documentation are:

7.1.1. Hazardous Waste Profile Sheet DRMS Form 1930 (see Section II of this handbook).

7.1.2. Disposal Turn-In Document (DTID) DD Form 1348-1A (see Section II of this handbook).

7.1.3. Restricted Waste Notification DRMS Form 1851 or Contractor equivalent (see Section II of this handbook).

7.1.4. Uniform Hazardous Waste Manifest EPA Form 8700-22. The Contractor shall complete the Uniform Hazardous Waste Manifest in accordance with 40 CFR 262.20 Subpart B- and the instructions included in the appendix to part 262 (see Section II of this handbook).

7.1.5. Non-Hazardous Waste Manifest The Contractor shall complete the Non-Hazardous Waste Manifest in accordance with instructions included in the appendix (see Section II of this handbook).

7.2. Commercial Documentation**.**

7.2.1. Uniform Hazardous Waste Manifest (see 7.1.) and Section II of this handbook

7.2.2. Non-Hazardous Waste Manifest (see para 7.1.) and Section II of this handbook.

7.2.3. Profiles and Land Disposal Restrictions (LDR): Most commercial Temporary Storage and Disposal Facilities (TSDF) profiles and LDR forms are in their format and require their use. In regards to hazardous waste profiles, 611 requires cross referencing our numbering system to their profile form. Furthermore, the TSDFs shall be required to approve waste stream profiles with more than one generator site address, so that the same waste stream may be shipped from any 611 Air Force generator site under the same profile. As well as comply with requirements in para 1. of this section.

7.3. Canadian documentation**.** In some instances, it may be necessary to ship hazardous materials/substances/wastes through Canada. In such cases the Contractor shall prepare all documents required including Canadian Manifests, and all notifications to Environment Canada of the intent to transport through Canada. The Contractor shall acquire all documentation required for transport through Canada and ensure that all necessary documents accompany the manifest, including "Transit Confirmation" from Environment Canada. Verification of the accuracy and completeness of the manifests is the responsibility of the Contractor. The Contractor shall provide a qualified person to review every manifest.

Instructions for DRMS Form 1930 Hazardous Waste Profile Sheet or Contractor equivalent

PART I

A. GENERAL INFORMATION

- WASTE PROFILE NO. Enter waste profile number. Note: This number will be supplied to you from the HWPM or his designated representative.

1. GENERATOR NAME Enter the name of the generating facility. (See attachment 4 Instructions for completing the Uniform Hazardous Waste Manifest, Item 3).
2. FACILITY ADDRESS Enter the street address of the generating facility. (See attachment 4 Instructions for completing the Uniform Hazardous Waste Manifest, Item 3).
3. GENERATOR USEPA ID - Enter the 12 character alphanumeric descriptor issued by the USEPA to the facility generating the waste. (See Table 1, 611 Generating Sites Information and select the appropriate USEPA ID number from the listing).
4. GENERATOR STATE ID - Enter the descriptor issued by the state to the facility generating the waste (if applicable). Note: at this time Alaska has not adopted State EPA ID numbers.
5. ZIP CODE - Enter the generating facility's five or nine digit zip code. (See attachment 4 Instructions for completing the Uniform Hazardous Waste Manifest, Item 3).
6. TECHNICAL CONTACT - Enter technical contact's name.
7. TITLE - Enter technical contact's title.

- PHONE - Enter technical contact's telephone number.

B. SPECIFIC INFORMATION

1. NAME OF WASTE - Enter a name that is generally descriptive of this waste (e.g., paint, sludge, PCB contaminated dirt, and cyanide plating waste.)
2. USEPA/or STATE I.D. NO. - Indicate the appropriate state or USEPA Hazardous waste identification number (e.g. D001, U 119 etc.)
3. PROCESS GENERATING WASTE - List the specific process/operation or source that generates the waste (e.g. paint spray booth, PCB spill, metal plating operation).
4. PROJECTED ANNUAL VOLUME/UNITS - Enter the amount of this waste which will be generated annually. Use the appropriate units to describe this volume (e.g. pounds).
5. MODE OF COLLECTION - Describe the method utilized to collect and store the waste stream (e.g., drums, tanks, and ponds).
6. DIOXIN WASTE - Storage and disposal of Dioxin wastes requires special attention. If this waste is a USEPA listed Dioxin waste indicate "YES" and contact your DRMO representative.
7. LAND DISPOSAL RESTRICTIONS - Indicate if waste has been prohibited from land disposal, has received an exemption under 268.8 or meets the applicable treatment standards.

PART II

1. MATERIAL CHARACTERIZATION *(OPTIONAL - NOT REQUIRED DATA)*

- COLOR - Describe the color of the waste (e.g., blue, clear, varies).
- DENSITY - Indicate the range. The specific gravity of water is 1.0. Most organics are less than 1.0. Chlorinated solvents, most inorganics and paint sludge are greater than 1.0.
- BTU/LB - This entry is only used for property that may have potential for use as a fuel substitute.
- ASH CONTENT - This entry only for used oil with recovery potential.
- TOTAL SOLIDS - Content can be expressed as either a weight percentage or dry weight concentration (mg/kg).
- LAYERING - Check all applicable boxes. Multi-layered means more than two layers (e.g., oil/water, solvent/sludge). Bi-layered means the waste is comprised of two layers, which may or may not be of the same phase (e.g., oil/water, solvent/sludge). Single phase means the waste is one layer (e.g., oil, water or solid).

2. RCRA CHARACTERISTICS

- PHYSICAL STATE - If the four boxes provided do not apply, a descriptive phrase may be entered after "Other".
- IGNITABLE - Indicate if the waste is ignitable (D001) and list its liquid flash point obtained using the appropriate testing method (40 CFR 261.21). The flash point is important from a transportation standpoint (49 CFR 173.115). Also list if this waste is considered to be a HIGH TOC IGNITABLE (contains >. 10% total organic carbon) or a LOW TOC IGNITABLE (contains <. 10% TOC). Knowledge of high/low TOC is required due to Third Third Land Ban regulations. Solids with flammable potential should be identified in PART 3 (e.g., Pyrophoric, RCRA Reactive, other).
- CORROSIVE - Indicate if the waste is corrosive (D002) and its pH for liquid or liquid portions of the waste. Also indicate if this waste corrodes steel (40 CFR 261.22). For solid or organic liquid wastes, indicate the pH of a 10% aqueous solution of the waste if applicable. Write "NA" for non-water soluble materials (e.g., dismantled tanks, empty drums, and gases).
- REACTIVE - Indicate if the waste is reactive (D003) and if it is water reactive, cyanide reactive, or sulfide reactive (40 CFR 261.23).
- TOXICITY CHARACTERISTIC - Check appropriate box/s and list contaminant level.

3. CHEMICAL COMPOSITION

- Indicate if any of the listed chemical components (e.g., copper, nickel, phenols, PCBs etc.) are present in the waste and indicate the concentration level in ppm or mg/L.
- OTHER - Indications of other hazardous characteristics must be included (e.g., explosives, radioactive, etiological, peroxide-forming etc.)
- NOTE: Explosives shock sensitive, pyrophoric, radioactive and etiological waste are normally not accepted by the DRMO for disposal.

4. MATERIAL COMPOSITION: Section 4 is necessary to determine if any listed wastes have been added to a characteristic waste in addition to the basic material makeup.

List all organic and/or inorganic components of the waste using specific chemical names. If trade names are used, attach MSDS or other documentation which adequately describe the composition of the waste. For each component, list it's Chemical Abstract Service (CAS) No. (if applicable) and estimate the range (in percent) in which the component is present. In case of extreme pH (2 or less or 12.5 or greater) indicate specific acid or caustic species present. This list must include any hazardous components which exceed 10,000 ppm (1 %). The total of the maximum values of the components must be greater than or equal to 100% including water, earth, etc.

5. SHIPPING INFORMATION

The presented information is not meant to constitute a standard US DoT certificate given by a shipper offering a package to a transporter. If the information contained in this section is also given on a manifest at time of turn-in, a copy of that manifest will suffice.

- Indicate if this waste is regulated by U.S. Department of Transportation (DOT) (49 CFR 172.101).
- PROPER SHIPPING NAME - Enter the proper USDOT shipping name for this waste (49 CFR 172.101).
- HAZARD CLASS - Enter the proper USDOT hazard class (49 CFR 172.101).
- I.D. # - Enter the proper USDOT Identification Number (49 CFR 172.101).
- ADDITIONAL DESCRIPTION - Enter any additional shipping information required (e.g., "RQ", the names of Hazardous Substance Constituents as they would appear on the Uniform Hazardous Waste Manifest and the packaging) (49 CFR 172.203).

Instructions for DRMS Form 1930 Hazardous Waste Profile Sheet or Contractor equivalent

- CERCLA/DOT REPORTABLE QUANTITY (RQ) - Enter the Reportable Quantity for this waste from 49 CFR 172.101 or 40 CFR 302.
- EMERGENCY RESPONSE GUIDE PAGE - Indicate the appropriate guide page found in DOT Publication 5800.4 as required by 49 CFR 172.602. S. SPECIAL HANDLING INFORMATION - Describe those hazards which you know or reasonably believe are or may be associated with short term or prolonged human exposure to this waste (29 CFR 1910.1200 1. If known, identify any carcinogens present in this waste in excess of 0.1 % (29 CFR 1910.1200(d)(4). Attach relevant documents as a part of your response if appropriate. If documents are attached, identify those attachments. If you have a current Material Safety Data Sheet, it may be attached. Failure to make an entry in PART 5 is considered to be a representation that you neither know nor believe that there are any adverse human health effects associated with exposure to this waste. Also include any additional information that will aid in the management of the waste.

6. GENERATOR CERTIFICATION

"CHEMICAL ANALYSIS" OR "USER KNOWLEDGE" OR A COMBINATION OF BOTH IS MANDATORY AND WILL BE ATTACHED TO THE HAZARDOUS WASTE PROFILE SHEET. THIS IS USED AS SUPPORTING DOCUMENTATION TO THE WASTE PROFILE SHEET.
An authorized Air Force representative must sign and date this certification on the completed generator's Hazardous Waste Profile Sheet.

CHEMICAL ANALYSIS - Attach copies of analysis. USER KNOWLEDGE - User knowledge is appropriate when it can be documented (e.g., in & out logs, published information, MSDS, process production information). There is room provided to explain "what and "why" user knowledge is used in lieu of analysis. Attach all supporting documentation.

PART III
DRMO VERIFICATION

The appropriate DRMO personnel will fill in this section.

This page is not used

Land Disposal Restrictions and DRMS Form 1851 or Contractor equivalent

LAND DISPOSAL RESTRICTIONS

1. INTRODUCTION.

1.1. Since the passage of RCRA in 1976, there has been a movement to restrict the land disposal of hazardous wastes. The Hazardous and Solid Waste Amendments (HSWA) of 1984 mandated new land disposal limitations. HSWA required the U.S. Environmental Protection Agency (EPA) to issue regulations restricting the disposal of untreated hazardous waste. The implementation of these congressionally mandated requirements has become known as the Land Disposal Restriction program. Over the years, EPA implemented several regulations which phased in the restrictions for the land disposal of hazardous wastes. The key rules implementing the land disposal restriction program are:

Rule Waste Affected:

51 F.R. 40572 (Nov. 7, 1986) Solvents & Dioxin Wastes

52 F.R. 25760 (July 8, 1987) California List Wastes

53 F.R. 31138 (Aug. 17, 1988) First Third Listed Wastes

54 F.R. 26594 (Jun 23, 1989) Second Third Listed Wastes

55 F.R. 22520 (Jun 1, 1990) Third Third Listed Wastes and Characteristic Wastes

57 F.R. 37194 (Aug 18, 1992) Hazardous Debris

58 F.R. 29860 (May 24, 1993) Emergency Rule, Certain D001 and D002 Wastes

59 F.R. 47980 (Sep 19, 1994) Phase II LDR Amendments

61 F.R. 15566 (Apr 8, 1996) Phase III LDR Amendments, Decharacterized Wastewasters, Carbamate Wastes, and Spent Potliners

61 F.R. 15660 (Apr 8, 1996) Partial Withdrawal and Amendment of Phase III Final

63 F.R. 28556 (May 26, 1998) Phase IV LDR Rule, revised numerical Universal Treatment Standards (UTS) for twelve metal constituants Rule

1.2 **The Land Disposal Restriction (LDR) regulations are found in 40 CFR 268**. The basic components of the LDR program are relatively straightforward. For each hazardous waste, EPA has established a treatment standard or a specific treatment method that is determined to be protective of human health or the environment. Hazardous waste must be treated to this standard or by the specific method before the waste can be land disposed. Generators are responsible for identifying their waste to comply with the LDR requirements. Additional paperwork is required with the manifest when these wastes are shipped off-site. This paperwork notifies those who will handle the waste of the land disposal restriction requirements and may include a certification by the generator. In addition, there are also storage and recordkeeping requirements associated with the LDR program.

1.3 EPA land disposal restrictions do not apply overseas, except for U.S. territories (i.e., Guam, Puerto Rico). Overseas DRMO's will follow the general provisions in paragraph A2 of Chapter 1 of this instruction.

2. WASTES SUBJECT TO THE LAND DISPOSAL RESTRICTIONS. With the issuance of the regulations listed in paragraph 1a, most hazardous wastes are now subject to the land disposal restrictions. This includes wastes that meet a characteristic or are listed, and also includes special hazardous wastes such as soils, debris, and lab packs. The specific requirements associated with the LDR program for various wastes can be found at:

2.1. Spent solvents, 40 CFR 268.30.

2.2. Dioxin containing wastes, 40 CFR 268.31.

2.3. California list wastes, 40 CFR 268.32 (Removed and Reserved from regulations).

2.4. The first, second, and third third listed and characteristic wastes, 40 CFR 268.33, 268.34, 268.35.

2.5. Newly listed wastes, 40 CFR 268.36 (Removed and Reserved from regulations).

2.6. Ignitable and corrosive wastes whose treatment standards were vacated, 40 CFR 268.37.

2.7. Newly identified organic toxicity characteristic wastes, 40 CFR 268.38.

2.8. Spent aluminum potliners; reactive; and carbamate wastes, 40 CFR 268.39

2.9. Hazardous waste debris 40 CFR 268.45. and;

2.10. Lab packs, 40 CFR 268, Appendix IV.

3. WASTE IDENTIFICATION, WASTE CODES, AND HAZARDOUS CONSTITUENTS.

3.1. Hazardous waste must be identified in sufficient detail to permit the identification of all applicable waste codes, regulated hazardous constituents, and/or underlying hazardous constituents. The LDR program requires that all waste codes that apply to a waste be identified and the waste treated for each waste code. An exception is made for listed wastes where a constituent that would cause a waste to meet a characteristic is addressed in the listed waste's treatment standard. For example, benzene, a U-listed waste (U019) would not require the identification of the D018 (TCLP benzene) waste code because the treatment standards for U019 addresses the benzene hazardous constituent.

3.2. For listed wastes (i.e., F, K, P, or U), the LDR identification requirements include:

3.2.1. The regulated listed hazardous constituent(s) identified in 40 CFR 268.40 that are present in the waste; and,

3.2.2. Any other hazardous constituent(s) present that would give the waste a characteristic waste code and is not listed as a constituent in the table in 40 CFR 268.40. For example: a spent degreasing solvent contaminated with lead above the TCLP level would require the assigned waste codes of F001 and D008; and,

3.2.3. If a listed waste also possesses a D004-D043 characteristic that is not identified as a regulated hazardous constituent in 40 CFR 268.40, then any underlying hazardous constituents present above the regulatory level in the table in 40 CFR 268.48 need to be identified. For example: a spent solvent that is contaminated with vinyl chloride above the TCLP level would be assigned the waste codes of F003 and D043. The D043 waste code is assigned because vinyl chloride is not listed as a regulated hazardous constituent in 40 CFR 268.40. Furthermore, because the waste meets the characteristic for D043, any underlying hazardous constituent listed and above the regulatory level in 40 CFR 268.48 and is not a hazardous constituent identified in 40 CFR 268.40 for F003 wastes must be identified.

3.3. For characteristic wastes, the LDR identification requirements include:

3.3.1 All characteristic waste codes that apply to the waste; and,

3.3.2. Depending on the treatment method or treatment standard in 40 CFR 268.40, any underlying hazardous constituents listed in 40 CFR 268.48 that are present above the level in the table. **Any treatment method or standard in 40 CFR 268.40 that contains the phrase: "& meet 268.48 standards" will require the identification of underlying hazardous constituents.**

3.4. DRMO shall coordinate with their contractor to determine if any of the wastes will be treated/managed by a method where the identification of underlying hazardous constituents apply. If a waste requires the identification of underlying hazardous constituents, DRMO must inform the generator that this identification is needed. The following summarizes when the identification of hazardous underlying constituents is or is not required:

- Characteristic wastes that are de-characterized and managed in Clean Water Act (CWA)/CWA-equivalent, or Class I Safe Drinking Water Act (SDWA) facilities do not require the identification of underlying hazardous constituents.
- D001, D002, D003 (explosive and water reactive subcategories), D004-D011 Toxicity Characteristic (TC) metal hazardous wastes and D012-D043 characteristic wastes that are managed in non-Clean Water Act (CWA)/non-CWA-equivalent, or non-Class I Safe Drinking Water Act systems (underground injection), will require the identification of the underlying hazardous constituents unless the disposal facility monitors for all underlying hazardous constituents listed in 40 CFR 268.48.
- Wastes that possess a D001 characteristic only, and will be treated by combustion (CMBST) or recovery of organics (RORGS) do not require the identification of underlying hazardous constituents.
- TC pesticide (D012-D017) and TC organic (D018-D043) that will be treated by CMBST or RORGS require the identification of the underlying constituents unless the TSDF monitors for all underlying hazardous constituents.

3.5. Identification of Underlying Hazardous Constituents. Only underlying hazardous constituents that are **"reasonably expected to be present"** need to be determined. Generators do not have to determine the presence or absence of all underlying hazardous constituents listed in the table in 40 CFR 268.48. The determination of underlying hazardous constituents may be based on: knowledge of the raw materials used; the process they operate; the potential reaction products of the process; or, a one-time analysis for the entire list of constituents listed in the table in 40 CFR 268.48.

4. DETERMINATION OF TREATMENT STANDARDS.

4.1. Universal Treatment Standards. The 19 Sep 94 final rule implementing Phase II of the LDR program consolidated all treatment standards from the previous tables in 40 CFR 268.41, 268.42, and 268.43, into one table at 40 CFR 268.40 entitled "Treatment Standards for Hazardous Wastes". The treatment standards listed in the table are based on the "Universal Treatment Standards" found in 40 CFR 268.48. The purpose of the UTS was to set a single universal treatment standard for: 1) each constituent identified in wastewaters; and, 2) each constituent identified in non-wastewaters that previously had a numerical treatment standard. The effect was to standardize treatment standards for the same constituents regardless of which waste the constituent is present. The UTS are based on incineration and the analytical limits detectable in the incinerated ash.

4.2. To determine which treatment standards/methods apply to a waste, follow the steps below. This information will be needed to complete the LDR notification form. Use the waste profile sheet (provided by the generator), the MSDS, or copies of waste analysis to obtain the information needed.

(STEP 1) The waste must be a RCRA waste (i.e. meet a characteristic or be listed). If the waste does not meet the definition of a RCRA hazardous waste, it is not subject to the LDR requirements.
(STEP 2) Determine all appropriate waste codes (listed or characteristic) in accordance with paragraph 3 above. If a waste possesses several characteristics, all characteristic waste codes (D001-D043) must be identified. Also, some listed wastes (F, K, P, or U) can also possess certain RCRA characteristics and these waste codes must also be identified.
(STEP 3) Determine if the waste is either a wastewater or non-wastewater based on the definition in 40 CFR 268.2. Almost all hazardous wastes handled by DRMO will fall into the non-wastewater category. A wastewater is generally defined as a waste containing less than 1% total organic carbon (TOC) and less than 1% total suspended solids (TSS). If it doesn't meet the wastewater definition, it is a non-wastewater.
(STEP 4) For each applicable waste code, determine if there is a subcategory to the waste code that applies. This is obtained by referring to the table in 40 CFR 268.40. There are several types of subcategories. For example, subcategories can exist based on concentration (e.g. high-TOC subcategory for D001, or low mercury subcategory for D009): or, for the source of the waste (e.g. D008-lead batteries subcategory).
(STEP 5) Some wastes will require the identification of hazardous constituents or underlying hazardous constituents. This will depend on: 1) how the waste will be disposed of ; and /or, 2) the type of monitoring being performed by the TSDF. Refer to the tables in 40 CFR 268.40 and 268.48. Also, see paragraph 3.4. for additional information.

- For certain D001, D002, and D003 wastes, and D004-D043 characteristic wastes, the underlying hazardous constituents must be identified if the waste will be managed in a non-CWA facility or non Class I SDWA injection well under your disposal contract (40 CFR 268.48).
- For listed wastes, (i.e., F001-F005, F039,) the regulated hazardous constituents listed under the applicable waste code must be identified (40 CFR 268.40). Also, if the listed waste also possess a hazardous characteristic, then underlying hazardous constituents must also be identified (40 CFR 268.48).

Note: If the TSDF monitors for all constituents of concern (either all underlying hazardous constituents for characteristic wastes or all regulated hazardous constituents for listed wastes), the identification of the specific constituents is not required.
(STEP 6) Determine if the waste meets the treatment standards for the applicable waste code(s) from the table in 40 CFR 268.40. Wastes that exceed the standards in this table or have a treatment method identified must be treated.
(STEP 7) Prepare the paperwork associated with the LDR program. This includes the restricted waste notification and certification in 40 CFR 268.7 (DRMS Form 1851, generator form, or contractor equivalent).

5. NOTIFICATION REQUIREMENTS.

5.1. When a land disposal restricted waste is shipped, a notification form must be provided with the manifest which tells the TSDF receiving the hazardous waste whether the waste has or has not been treated, and if treated, the degree of treatment. Specific information is required on this notification form but there is no mandatory form to be used. DRMS has a form (DRMS Form 1851, see Figure 2 pages 33-38 of this handbook) which can be used. Also, disposal contractors and generators may have their own form. Any form may be used as long as it meets the requirements of 40 CFR 268.7.

5.2. If a DRMO receives a restricted waste from off-site, the notification requirement is the responsibility of the generating activity. A proper notification form must be attached to the incoming manifest.

5.3. Most wastes shipped by DRMO will be untreated hazardous waste that will require treatment. The notification requirements for waste that must be treated prior to disposal are stated in 40 CFR 268.7(a)(1). The notification form must contain the following:

5.3.1 Hazardous Waste Manifest Number.

5.3.2 EPA Hazardous Waste Code(s).

5.3.3. Constituents of Concern (see paragraph 5.4.).

5.3.4. Subcategory; if applicable. (i.e., high -TOC subcategory for D001, lead acid battery for D008).

5.3.5. Treatability Group, (i.e. wastewater or non-wastewater).

5.3.6. Waste analysis data.

5.3.7. Treatment standard or reference (see paragraph 5.5.).

5.3.8. Date the waste is subject to prohibition (see paragraph 5.6.).

5.4. Constituents of Concern. Only those regulated hazardous constituents in F, K, P, and U listed wastes and the underlying hazardous constituents in the D001-D003, D004-D011, D012-D043 characteristic wastes (if going to a non-CWA facility) that are "reasonably expected to be present" need to be listed on the LDR notification. If the TSDF that the waste is being shipped to monitors for all applicable constituents, then there is no requirement to list the hazardous constituents on the LDR notification form.

5.5. Treatment Standard/Reference. 40 CFR 268.7 no longer requires the treatment standard or reference on the notification form. However, states with authorization to implement the LDR program may still require this information on notification forms until their regulations adopt this change. DRMOs located in states or DRMOs sending hazardous waste to facilities located in states authorized to implement the LDR program should continue to list the treatment standard or reference on the LDR notification.

5.6. Date the waste is subject to prohibition. On 3 Jan 95, EPA issued technical amendments to the 19 Sep 94 Phase II final rule. Included in this technical amendment was the inadvertent addition of the date the waste is subject to the prohibition as a requirement on the LDR notification form. Because this addition was added to the regulation, it can be considered enforceable. As a result, DRMO includes this requirement on the LDR notification form until EPA amends the regulation. These dates can be obtained from 40 CFR 268 Appendix VII
5.7. Characteristic hazardous wastes once de-characterized are not subject to the LDR notification and certification requirements.

6. CERTIFICATION REQUIREMENTS

6.1. Under certain conditions, depending on the levels of the constituents in the waste itself or the degree of treatment performed, the restricted hazardous waste notification may require a signed certification. The certification may be part of a notification form or may be separate but attached to the notification form. DRMS Form 1851 includes the various certifications that may need to accompany a restricted waste notification and the applicable certification(s) need only be checked.

6.2. If a hazardous waste meets the treatments standards and is eligible for land disposal without further treatment, a certification must accompany the LDR notification.. The required certification is found in 40 CFR 268.7(a)(2)(ii). Most restricted hazardous waste received by DRMO will not meet the treatment standards. However, if a waste that is being turned-in from off-site meets the treatment standard, the generator must provide this certification.

6.3. If a waste is subject to an exemption from the LDR prohibitions, such as a nationwide capacity variance or a case by case extension, the notification must state that the waste is not prohibited from land disposal and include the information in 40 CFR 268.7(a)(3).

6.4. Wastes that have been treated to remove a characteristic but not the underlying hazardous constituents requires a certification on the LDR notification form (40 CFR 268.9). The certification required can be found in 40 CFR 268.7(b)(5)(iv). This certification basically states that the waste has been treated to remove the hazardous characteristic, but that the de-characterized waste contains underlying hazardous constituents that require further treatment.

7. LAB PACKS. Lab packs are subject to the land disposal restrictions. Lab packs must be treated to the standards in 40 CFR 268.40 or they can be handled under the alternative treatment standards in 40 CFR 268.42(c). The 19 Sep 94 final rule changed the LDR notification and certification requirements for lab packs to correspond with changes made to regulations determining what goes into a lab pack. EPA replaced 40 CFR 268 Appendix IV and V with a new Appendix IV which lists the waste codes that are prohibited from going into a lab pack. If lab packs are handled under the alternative treatment standard in 40 CFR 268.42(c), a lab pack notification form must list the information in paragraph 5.3. above except that underlying hazardous constituents need not be identified. Also, a certification for lab packs is required. This certification can be found in 40 CFR 268.7(a)(8). In general, the certification states that the lab pack does not contain any wastes identified in Appendix IV to part 268.

8. SOIL. Contaminated soils that meet the definition of hazardous waste are subject to the land disposal restrictions and the treatment standards in 40 CFR 268.40 unless a variance to the treatment standards is obtained through 40 CFR 268.44(a). Soils meeting the characteristic of a D001-D043 waste are now subject to the LDR program as a result of the 26 May 98 Phase IV final rule. However, soil contaminated with petroleum which is managed under a RCRA underground storage tank removal is not subject to the D018-D043 treatment standards. Petroleum contaminated soil meeting D001-D017 characteristics are subject to the LDR requirements.

9. DEBRIS. Debris meeting the definition of a hazardous waste is subject to the land disposal restrictions. Debris meeting the characteristic of D001-D043 are now subject to the LDR. However, debris may be treated in either of two ways: 1) Debris may be treated to meet the standards in 40 CFR 268.40; or 2) Debris may be treated to meet the alternative standards in 40 CFR 268.45.

10 RECORDKEEPING. All information on land disposal restrictions (notices, certifications, manifests, waste analysis or determination) must be kept for 5 years.

Instructions for Completing Disposal Turn-In Document (DTID), DD Form 1348-1A

General requirements:

A. All hazardous materials/substances/wastes and non-hazardous materials/substances/ wastes being turned in to DRMO must be accompanied by a properly completed Disposal Turn-In Document (DTID) using DD Form 1348-1A.
B. Six (6) 1348-1A (original plus 5 copies) required for each line item on the manifest for turn-in to DRMO.
C. The instructions below will populate the DTID form (computer generated), which can be acquired from the HWPM. The supplied 1348-1A can be opened in MS Word and be sent to a printer selected from windows print manager on plain pin fed, multi-part 8 1/2 X 5 1/2 form paper or multiple copies can be printed from other printers such as laser or bubble jet types.
D. The minimum information required for processing a turn-in is provided below and must be legible (preferably typewritten) to ensure all copies are clear. Consider the entries mandatory unless otherwise specified, and must be entered or the turn-in may be rejected.

1) The "cc" stands for card column number located at the top of the 1348-1A.
2) Block numbers 1 (TOTAL PRICE) through 27 (ADDITIONAL DATA) are self evident upon looking at the example form (see figure 3 of this appendix).
3) Additional required applicable information will be numbered in italics followed by alpha characters to differentiate required information and to indicate their locations on the form.

INSTRUCTIONS FOR COMPLETING DISPOSAL TURN-IN DOCUMENT (DTID) DD FORM 1348-IA

See Figures 3A DD FORM 1348-1A and 3B DD FORM 1348-1A populated example

cc 23-24: UNIT OF ISSUE: Enter appropriate two letter alpha code as identified in Table 1 in the appendix to 40 CFR 261 Uniform Hazardous Waste Manifest and Instructions.

cc 25-29: QUANTITY: Enter total number of containers using five digits (e.g. 00001).

cc 52-53: FUND: Enter "30".

cc 65-66: ADVICE: Enter "NA".

cc 71: Enter the supply condition code: The Contractor will primarily insert the letter "H" denoting the waste product as being unserviceable and condemned. This is also applicable for recyclable materials. When scrap metals are to be turned-in the letter "S" will be inserted. If the situation arises when the Contractor may have serviceable products or materials for turn-in to DRMO the Contractor will contact the HWPM for appropriate coding.

cc 74-80: UNIT PRICE: Enter five digits (e.g. 001.67 for $1.67). The unit price will correspond to the CLIN cost per lb. For guidance on proper CLIN selection see Attachment 3B (WASTE CODE CLIN SELECTION CRITERIA), Table 3 (CLIN Selection Listing) and Attachment 3C (CLIN Clauses) for proper CLIN selection. Note: Previously completed Waste Profile will normally have already identified proper CLIN. .

Block 1: TOTAL PRICE: Enter the unit price multiplied by the number of pounds for turn-in.

Block 2: SHIPPED FROM: Enter the site's Department of Defense Activity Code (DoDAAC), site name, followed by 611 CEVC HWPM address. Example:
FG5013 Indian
Mtn LRRS
c/o 611 CEVC BLDG 10471.
EAFB AK 99506

Block 3: SHIPPED TO: Enter appropriate DRMO address that you are shipping property to: SZ362D, DRMO-UCCB, EAFB, AK 99506 (for Elmendorf DRMO).

Instructions for Completing Disposal Turn-In Document (DTID), DD Form 1348-1A

Block 4: MARK FOR: Enter:
• HM (hazardous material) if waste or material does not carry an EPA waste code.
• HW (hazardous waste) if waste carries an EPA waste code.

Blocks 5-15: For DRMO use only. Leave blank.

Block 16: FREIGHT CLASSIFICATION NOMENCLATURE: Enter shipping description should be as entered on Hazardous Waste Profile DRMS Form 1930.

Block 17: ITEM NOMENCLATURE: Enter the name of waste as entered on Hazardous Waste Profile DRMS Form 1930 section "B" item 1 "NAME OF WASTE".

Block 18: TY CONT (Type of Container): Enter:
1) Container size in number of gallons i.e. 55 (55 gallons), 85 (85 gallons), etc.
2) Container identification code designation as described in 49 CFR 178.502 i.e. 1A1 (non-removable head steel drum), 1H2 (removable head plastic drum).

Block 19: NO CONT (Number of Containers): Enter the total number of containers for turn-in on this document.

Block 20: TOTAL WEIGHT: Enter the total aggregate weight of waste/material and containers in pounds.

Blocks 21-23: Leave blank. To be filled in by DRMO.

Block 24: DOCUMENT NUMBER: Enter:
1) DoDAAC (see Table 1)
2) Last digit of the year i.e. "9" referring to 1999.
3) Julian day. Note: The Julian calendar day one (1) starts on January 1 and the last day of the Julian year December 31 is day 365 (see table 4 JULIAN DATE CALENDAR).
4) Serial number: This is a four- (4) digit identifier beginning with an alpha character (**T**) followed by three (3) numeric characters, for example, FG5013 9001 T001

Block 25: NATIONAL STOCK NUMBER (NSN): For environmentally derived remedial wastes/materials this entry will begin with a four (4) digit Federal Stock Class (FSC) number followed by a dash "-" then followed by "00" then another dash "-" then a descriptive noun identifying the material i.e. 9150-00-Gasoline/Water. We suggest the contractor contact DRMO environmental section to establish an acceptable NSN (see Table 2 POC INFORMATION for contact number).

Block 26 ADDITIONAL DATA: Note: The computer disk supplied by the Air Force containing this form is formatted to contain the "typed" portions that follow in Blocks 26 and 27.
26A). Type: "EPA WASTE CODES", enter: all applicable waste codes i.e. D001 F002 ET.
26B). Type: "**THIS PACKAGE MEETS OR EXCEEDS 49 CFR 170-180 *SIGNATURE:"*** Enter (signature certifying compliance with statement). Note: Signature is required if waste/material is regulated in transportation. This signatory will be an Air Force representative to review and sign your documents.
26C). Type: "**CLIN**" Enter (CLIN number) type":" *selected from Table 3 CLIN* LIST. Enter (CLIN cost per lb.) Type "**@**" enter (total lb. as entered on Block 20) "**/LB**." Type "**TOTAL:**" enter (calculated total cost cc 74-80: UNIT PRICE) X (Block 20: TOTAL WEIGHT).
Example: **CLIN 9904: $0.68 @ 15,691/LB. TOTAL: $10,669.88**
26D). Type: "**MANIFEST DOC. NO:**" Enter (five-digit manifest document number of waste/material being described on DTID form). See Attachment 4, item 1 for further clarification.
26E). Type: **"ACCUMULATION START DATE/O.S.D."** Enter: (Accumulation start date for RCRA regulated wastes) for containers with varying dates use the earliest date; or (Out of Service Date (O.S.D.) for TSCA regulated PCB articles such as transformers, for drummed smaller PCB articles, such as capacitors, when collected over time the date the accumulation began must be entered).
26F). Type: "**BILL TO**:" Enter (DoDAAC), see Table 1.

Instructions for Completing Disposal Turn-In Document (DTID), DD Form 1348-1A

26G). Type: "**POC**:" Enter (POC name). This name will be an Air Force representative to review and sign your documents.
26H). Type: **"PHONE NO.:"** Enter (POC phone number).

Block 27 ADDITIONAL DATA:
27A). Type: **"Profile NO."** Enter: (profile number from DRMS Form 1930 Part 1 section A, Hazardous Waste Profile No.).
27B). This location on the form is intentionally left undefined. For transformers: Enter: Manufacturer; serial number; KVA; ppm of PCB's; height in inches; width in inches; depth in inches and weight in kilograms. For other wastes/materials the entry in this space should be populated with: contractors company business name; job identifying number and any other pertinent information which would aid in identifying project at a future date.
27C. Type: **"MSDS NO:"** Enter: (MSDS number, if MSDS was obtained from the Hazardous Material Information System (HMIS) from the Air Force); or (enter "ATTACHED" if MSDS is being sent with documentation package); or (enter "NIX' if other verification is being supplied such as analytical report/s).
27D). Type: **"ANALYSIS NO:"** Enter (analytical report number and enter **"see attached"** if analytical data is used to characterize the waste/material). It is required that the analytical report accompanies the shipment documentations if applicable. Enter "N/A" if other means for waste material characterization is used.
27E). Type: "Copy to:" Enter: 611 CES/CEVC
10471 20th Street, STE 302
Elmendorf AFB, AK 99506-2200
27F). Type: "**EPA ID No:**" Enter: (EPA ID No., See Table 1, 611 Generating Sites Information and select the appropriate USEPA ID number from the listing).

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CLIN Selection Criteria DD Form 1348-1A

WASTE CODE CLIN SELECTION CRITERIA

1. Contract Line Items (CLINs) are broken into three primary categories: RCRA; STATE REGULATED HAZARDOUS WASTE; and NON-RCRA, NON-STATE REGULATED HAZARDOUS WASTE. CLIN selection will be dependent upon the most descriptive CLIN based on the framework of the contract and in accordance with the following criteria.

1.1. RCRA: Wastes regulated by RCRA are identified according to the EPA waste number listed in the 40 CFR Part 261 and referenced by the CLIN headings (i.e. **IGNITABLE WASTE [40 CFR 261.21] D001).** Once the specific heading is determined, a CLIN will be assigned based on the appropriate subcategory listed under the specific heading.

1.1.1. If a waste exhibits more than one characteristic (more than one "D" waste number) the following hierarchy will apply to select the proper category:

1)	Reactivity	(D003)
2)	Ignitability	(D001)
3)	Corrosivity	(D002)
4)	Toxicity	(D004-D043)

1.1.2. If the waste is a combination of more than one listed waste with different waste numbers, the following hierarchy will apply to select the proper category:

1)	Acutely Hazardous	(P-Listed)
2)	Dioxin Related	(F020-23, F026-28)
3)	Leachate	(F039)
4)	Electroplating Related	(F006-F012, F019)
5)	Spent Solvent	(F001-F005)
6)	Toxics	(U-Listed)
7)	Industrial Process	(K-Listed)

1.1.3. When a waste includes combinations of listed and characteristic waste, the category will be selected based upon the listed waste number(s).

1.2. **STATE REGULATED HAZARDOUS WASTES:** Wastes that are State Regulated as Hazardous Waste in the state where the waste is generated will be assigned the appropriate CLIN listed under the heading **STATE REGULATED HAZARDOUS WASTE.**

1.3. **NON-RCRA, NON-STATE REGULATED HAZARDOUS WASTE:** Waste that is not regulated by RCRA nor regulated by the state of generation as hazardous waste will be assigned the appropriate CLIN listed under the heading **NON-RCRA, NON-STATE REGULATED HAZARDOUS WASTE.**

2. Appropriate CLIN selection within a CLIN waste category, shall be accomplished as follows:

2.1. If material is an aerosol, select the "AEROSOLS" CLIN;
NOTE: REGARDLESS OF SIZE, AEROSOLS WILL BE OFFERED UNDER THE AEROSOL CLIN.

2.2. If material is in a small container (less than 5 gallons), select the "SMALL CONTAINER" CLIN;

2.3.. If material is in bulk (in containers having a capacity greater than 119 gallons, or any size non-removable container, or is not containerized), select the appropriate "BULK" CLIN;

CLIN Selection Criteria DD Form 1348-1A

2.4. If containerized material contains any free liquids, select the "CONTAINERIZED LIQUIDS / MULTI-PHASE" CLIN; (see **)

2.5. If containerized material contains no free liquids, select the "CONTAINERIZED SOLIDS" CLIN. (see **)

** *Physical state based on test method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA Publication No. SW-846.*

3. NOTES:

3.1. BATTERIES

All batteries will be selected under the "CONTAINERIZED SOLID" CLIN in the appropriate category. Batteries are considered a small container item only when the outermost container holding the batteries has a capacity of less than 5 gallons.

3.2. EMPTY CONTAINERS (AS DEFINED IN 40 CFR)

STATE REGULATED HAZARDOUS WASTE and NON-RCRA, NON-STATE REGULATED HAZARDOUS WASTE empty containers (excluding aerosols) will be selected under the "BULK SOLID" CLIN. Aerosols will always be selected under the appropriate aerosol CLIN.

3.3. PCB CONTAMINATED WASTE.

3.3.1. RCRA/STATE REGULATED HAZARDOUS WASTE contaminated with PCBs will be selected under the appropriate "RCRA/STATE REGULATED HAZARDOUS WASTE" CLIN. If the PCB concentration is at or above regulated levels, the applicable CLIN shall be suffixed with a "-P" in the fifth and sixth positions and the following verbiage added to the description, *"contaminated with PCBs at or above regulated levels"*.

3.3.2. NON-RCRA, NON-STATE REGULATED HAZARDOUS WASTE contaminated with PCBs will be selected under the PCB contract, using the CLIN for the applicable concentration level.

3.4. AEROSOLS

The "AEROSOLS" CLINs found in most categories of the contract bid schedule are to be used only for small pressurized containers (including, but not limited to, paints, pesticides, lubricants, engine starting canisters, etc.). Note: Compressed gas cylinders, storage and handling of compressed gases and liquids in cylinders, and of cylinders, are to be offered on the appropriate gas cylinder contract.

CLIN Clauses

C. 25 LITHIUM - SULFUR DIOXIDE BATTERIES

The USEPA issued a Regulatory Interpretive Letter (RIL) on March 19, 1984, in which the agency concluded that lithium-sulfur dioxide batteries exhibit the characteristics of reactivity as defined in 40 CFR 261.23 and that handlers of these batteries must, therefore, comply with the requirements under 40 CFR Parts 124, 262 to 266, 268, 270, and 271. Under these standards, the land disposal of regulated quantities of such an item is prohibited unless the waste is treated so that it no longer meets the definition of a reactive waste under 40 CFR 261.23 and 40 CFR 264.17(b).

C. 53 RECYCLING VIA FUELS BLENDING - CLINs 9101RR, 9102RR, 9104RR, 9106RR, 9202RR, 9402RR, 9406RR, 9902RR, and 9906RR

In order to qualify for the Recycle/Reclaim "RR' CLINs listed above the waste/material must: have a BTU level of 5,000 or greater; contains no more than fifteen (15) percent water by volume; and no more than five (5) percent halogens by volume.

C. 54 RECLAMATION OF MERCURY BATTERIES - CLIN 9404MB

DRMO disposal contractor will reclaim via retorting or roasting in a thermal-processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery (as defined in 40 CFR).

C. 55 RECYCLING OF SOLVENTS AND ANTIFREEZE - CLINs 9402AF, 9402SD, 9406AF, 9502SD AND 9902AF

DRMO disposal contractor will recycle, by a means other than fuels blending/burning, solvents removed under CLINs suffixed "SW and antifreeze removed under CLINs suffixed "AP.

C. 56 RECYCLING OF LEAD ACID BATTERIES - CLIN 9904LA

DRMO disposal contractor will recycle lead and plastic from batteries removed under the CLIN listed above. The batteries may be filled with electrolyte.

C. 58 RECYCLING OF FLUORESCENT LIGHT TUBES - CLIN 9404FT

DRMO disposal contractor will recycle fluorescent tubes ordered under the CLIN listed above.

C. 59 RECYCLING OF LATEX PAINT - CLINs 9901LP AND 9902LP

DRMO disposal contractor will recycle latex paint under the CLIN listed above. The waste will consist of:
1) Partially used cans of latex paint.
2) The paint will not be hardened.

C. 60 RECYCLING OF OIL FILTERS - CLINs 9902FA AND 9904FB

DRMO disposal contractor will recycle oil filters under the CLINs listed above.
1) Oil filters removed under CLIN 9902FA will be drained of oil, but some liquid will remain.
2) Oil filters removed under CLIN 9904FB will be drained of oil and dry.

C. 62 RECYCLING OF ALKALINE BATTERIES - CLIN 9404AB

DRMO disposal contractor will recycle zinc from batteries removed under the CLIN listed above. The batteries may be filled with electrolyte.

CLIN Clauses

C. 63 RECYCLING OF FIXER DEVELOPER SOLUTION - CLIN 9402FS

DRMO disposal contractor will recycle silver from fixer developer solution removed under the CLIN listed above. Solution contains an average of 100 parts per million silver, however, this average may fluctuate.

C. 67 DISPOSAL OF CERCLA DERIVED WASTES - CLINs 9102CD, 9202CD, 9402CD, 9404CD, 9407CD, 9502CD, 9504CD, 9902CD and 9904CD

CLINs 9102CD, 9202CD, 9402CD, 9404CD, 9407CD, 9502CD, 9504CD, 9902CD, and 9904CD contain CERCLA derived wastes.

C. 70 RECYCLING OF LITHIUM-SULFUR DIOXIDE BATTERIES - CLIN 9304LL

DRMO disposal contractor will recycle silver lithium salts from batteries removed under the CLIN listed above. The batteries may be filled with electrolyte.

Uniform Hazardous Waste Manifest
General requirements

All hazardous materials/substances/wastes identified for handling and removal from 611 sites shall be packaged, labeled, marked and manifested according to applicable state and federal regulations (40 CFR 263). RCRA hazardous wastes must be transported utilizing a Uniform Hazardous Waste Manifest and shall be manifested separately from non-RCRA wastes. A Non-Hazardous Waste Manifest shall be utilized for non-RCRA wastes. PCBs shall be shipped using a Uniform Hazardous Waste Manifest and shall be manifested separately from all other items. The Contractor shall ensure that the Air Force receives the correct generator copies of all manifests. The Contractor shall further ensure the generator copy/copies are returned expeditiously to the facility address as entered in item 3 of the manifest, under "Generator's Name and Mailing Address" (see item 3, attachment 4 of this attachment, Uniform Hazardous Waste Manifest).

Attachment 4

Uniform Hazardous Waste Manifest

Instructions

- **Insert/type (above the header of the manifest):

"**24 HOUR EMERGENCY RESPONSE PHONE NUMBER:**" followed by the phone number in accordance with 49 CFR 172.604.

Note: For shipments on military aircraft with delivery to DRMO the emergency contact number is: **1-(800) 851-8061**. *When non-DRMO disposal contractor is utilized, they may provide emergency contact number as part of their disposal service.*

Item 1 Generator (station) EPA ID Number and Manifest Document Number: First three letters of Manifest Document Number are Station Designators followed by a two digit number. The five digit Manifest Document Number (block 1. of the manifest) will be filled in using the three letter-site designator followed by contiguous numbers from 01-99 starting with 01 at the beginning of each calendar year. The HWMP or the BOS Contractor will supply the appropriate manifest document numbers.

Note: For example, the first Manifest Document Number for any given calendar year for Anvil Mountain would be OME01. The 12-digit EPA ID number for Anvil Mountain is AKD983075292. Check both (three letter site designator and EPA 12 digit identifying number) against Table 1 in the back of this booklet for accuracy.

Item 2 Page Number and Number of Total Pages: (example) Page 1 of 3

Item 3 Generators' Name and Mailing Address: In cases when the generating sites name and designator is: **USAF-Anvil Mountain RSS, USAF-Bear Creek RRS, USAF-Beaver Creek RRS, USAF-Bethel RRS, USAF-Campion RRS, USAF-Canyon Creek RRS, USAF-Driftwood Bay RRS, USAF-Gold King Creek RRS, USAF-Granite Mountain RSS, USAF-Kalakaket Creek RRS, USAF-Lake Louise recreational area, USAF-Naknek Recreation ANNX 1 (Rapids Camp), USAF-Naknek Recreation ANNX 2 (Lake Camp), USAF-Nikolski RRS, USAF-Nome Tank Farm, USAF-North River RRS, USAF-Ocean Cape RRS, USAF-Pillar Mountain RRS, USAF-Port Heiden RRS, USAF-Port Moller RRS, or USAF-Unalakleet AFS** this Block should contain the following:

USAF-*followed by the sites name and designation i.e.* Anvil Mountain RSS
c/o 611 CEVC, 10471 20 Street, STE 302
Elmendorf AFB, Alaska 99506-2200.
Phone # (907) 552-4530

- OR -

In cases when the generating sites name and designator is: **USAF-Barter Island LRRS, USAF-Bullen Point SRRS, USAF-Cape Lisburne LRRS, USAF-Cape Newenham LRRS, USAF-Cape Romanzof LRRS, USAF-Cold Bay LRRS, USAF-Fort Yukon LRRS, USAF-Indian Mountain LRRS, USAF-Kotzebue LRRS, USAF-Lonely SRRS, USAF-Murphy Dome LRRS, USAF-Oliktok LRRS, USAF-Point Barrow LRRS, USAF-Point Lay LRRS, USAF-Sparrevohn LRRS, USAF-Tatalina LRRS, USAF-Tin City LRRS or USAF-Wainwright SRRS this Block should contain the following:**

USAF-*followed by the sites name and designation i.e.* Barter Island LRRS
c/o ARCTEC, 9327 Jerstad Ave
Elmendorf AFB, Alaska 99506-3060.
Phone # (907) 552-2150

- OR -

In cases when the generating site name and designator is: **USAF-Galena Airport (FOL)** this Block should contain the following**:**

USAF-Galena Airport (FOL)
c/o CDC, PO Box 319
Galena, Alaska 99741.
Phone # (907) 446-3351

Uniform Hazardous Waste Manifest

- OR -

In cases when the generating site name and designator is: **USAF-King Salmon (FOL)** this Block should contain the following:

USAF-King Salmon Airport (FOL)
c/o CDC, PO Box 595
King Salmon, Alaska 99613.
Phone # (907) 721-3473

- OR -

In cases when the generating site name and designator is: **USAF-Eareckson AFS** this Block should contain the following:

USAF-Eareckson AS
c/o PMC 406 W. Fireweed Lane, Ste. 104
Anchorage, Alaska 99503.
Phone # (907) 272-3433

Item 4 Generator's Phone Number: The Contractor shall ensure the generator phone number are the same as entered (see last entry in the facility address) in block 3 of the manifest, under "Generator's Name and Mailing Address".

Item 5 Transporter 1 Company Name: Enter the company name of the first transporter who will transport the waste.

Item 6 Transporter 1 EPA ID Number: Enter the U.S. EPA twelve-digit identification number of the first transporter identified in item 5. *Note: The Contractor must enter Transporter 1 phone number in field D (shaded area to right)*

Item 7 Transporter 2 Company Name: If applicable, enter the company name of the second transporter who will transport the waste. If more than two transporters are used to transport the waste, use a Continuation Sheet(s) (EPA Form 8700-22A) and list the transporters in the order they will be transporting the waste.

Item 8 Transporter 2 EPA ID Number: If applicable enter the U.S. EPA twelve-digit identification number of the second transporter identified in item 7. Note: If more than two transporters are used, enter each additional transporters company name and U.S. EPA 12 digit identification number in items 24-27 on the Continuation Sheet(s) (EPA Form 8700-22A). Each continuation sheet has space to record two additional transporters. Every transporter used between the generator and the designated facility must be listed. *Note: The Contractor must enter Transporter 1 phone number in field D (shaded area to right)*

Item 9 Designated Facility Name and Address: Enter the company name and the site address of the facility designated to receive the waste(s) listed on the manifest. The address must be the site address, which may differ from the company mailing address.

Item 10 TSD Facility EPA ID Number: Enter the U.S. EPA twelve-digit identification number of the designated facility entered in item 9. *Note: The Contractor must enter TSD facility phone number in section 1. (shaded area to right)*

Item 11 a, b, c, and d. Proper Shipping Description: It is essential that these sections be correct and in the following order: Proper Shipping Name, Hazard Class, ID Number, and Packing Group. They can be found in the Hazardous Materials Table, 49 CFR 172.101. *Note: If additional space is needed for supplementary waste descriptions, enter these descriptions in Sections 28a - i. on the Continuation Sheet(s) (EPA Form 8700-22A).*
** ERG numbers (Emergency Response Guide) will be inserted in the lower right hand corner of each block in items 11-a, b, c, d on EPA Form 8700-22 and item 28 a –i on EPA Form 8700-22A *continuation sheet* (see example of completed manifest).

Uniform Hazardous Waste Manifest

Item 12 Containers: Quantity and type for each line item (11.a - d). The following 2 letter designators represent types of containers.

DM Metal drums, barrels, or kegs
DW Wooden drums, barrels, or kegs
DF Fiberboard or plastic drums, barrels, or kegs
TP Tanks, portable
TT Cargo tanks (tank trucks)
TC Tank cars
DT Dump trucks
CY Cylinders
CM Metal boxes, cartons, and cases (including roll-offs)
CW Wooden boxes, cartons, or cases
CF Fiber or plastic boxes, cartons, or cases (including totes)
BA Burlap, cloth, paper, or plastic bags

Item 13 Total Quantity: For each line item (11 a - d)

Item 14 Units of measure: For each line item (11 a - d) one of the following one-letter designators must be used.
Note: Although the Appendix to Part 262- Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and their Instructions) allows for the use of many units of measure the 611 ASG will require the use of "P" for pounds to describe RCRA regulated wastes entered on manifests in non-bulk packaging, except when describing TSCA regulated PCB's in which case they will be described in Kilograms, "K", in Item 14 on the manifest.

G Gallons (liquids only)
P Pounds
T Tons
Y Cubic yards
L Liters
K Kilograms
M Metric tons
N Cubic meters

Section I. (shaded) EPA Waste Codes: Applicable waste codes will be listed on the profile for each line item in fields 11 a - d.

Section J. (shaded) Additional Descriptions for Materials Listed Above: Entries for block "J." of the Uniform Hazardous Waste Manifest and block "G." of the non-Hazardous Waste Manifest (Additional Descriptions for the Materials Listed Above) will at a minimum contain the following and in the prescribed order listed below:
"a., b., c., etc." Indicating the line item in item 11. of the manifest you are referring to.
The waste stream profile number, then a brief description of the waste or material.
The words: "Cont. No:" or "#:" (container number). Container numbering system explained below.
EXAMPLE: a. 611-9102RR-03, Used Oil contaminated W/Gasoline, Cont. #: 98OME-0001 thru 0008 (example of 8 containers on line item 11.a.).

CONTAINER NUMBERING SYSTEM: The container numbering system has three elements:
Two digit numerical indicating the calendar year manifested i.e.: 99 (1999).
Three digit site identifier (as explained above). Followed by: Four digit container numbers representing the container numbers given to the contractor by the BOS contractor or the 611 HWPM. *Note: Contractor will try to keep all container numbers for each line item contiguous.* Example: 99OME-0001 through 0008.

Section K. (shaded) Handling Codes for Wastes Listed Above: 611 ASG does not require any information to be entered in this section.

Uniform Hazardous Waste Manifest

Item 15 Special Handling Instructions and Additional Information: This section can be used for such things as out-of-service dates for transformers (always reference the line item “a., b., c., etc.”), and should always have the phrase "Certificate of Destruction/Disposal Requested".
** When using the manifest as a shipping paper and when aircraft are utilized for transportation, the following declaration from 49 CFR 172.204 (c)(3) must be added: **This shipment is within the limitations prescribed for: passenger aircraft/cargo aircraft only" (delete non applicable)”.**
Note: "Delete non applicable**" refers to the choice of passenger aircraft or cargo aircraft only. The mode not being utilized must be deleted. If a material cannot be shipped by passenger aircraft, then the choice should be deleted by drawing a line through the words "passenger aircraft" in the certification.

Item 16 Generator's Certification: Requires the Generator's (designated Air Force person) Printed Name, date of shipment, and Signature, and declares that the contents of the manifest are fully and accurately described, and are in all respects proper for transportation according to all applicable regulations. In most cases the Generator's Certification is already spelled-out in Section 16. It is important to make sure that the Certification includes all of the modes of transportation identified on the manifest. It is not uncommon to find that the Certification only identifies highway, or highway and rail. Thus it may sometimes be necessary to add the words “Air” and/or “Vessel” to the modes already mentioned in the Certification.

Item 17 Transporter 1 Printed Name, Date, and Signature: It is imperative that the Air Force representative receive the signed and dated generator copy from the first transporter prior to shipment entering in transportation.

Item 18 and 20 Transporter 2 Printed Name, Date, and Signature and Facility Owner or Operator Printed Name, Date, and Signature: These requirements will be completed after shipment has been accepted from transporter number 1 and there are no duties or responsibilities for these items for the contractor or the Air Force.

Item 19 Discrepancy Indication Space: For use at the TSDF if there are discrepancies between what is written on the manifest and what is actually received by the facility.
(Air Force hopes item 19 is never used)

Item 21 (First Continuation Sheet Not Shown)
Refer to Item 1:

Item 22
Refer to Item 2: Example: (page 2 of 3)

Item 23
Refer to Item 3:

Item 24
Name of Transporter 3: Also must write the number 3 in the blank above transporters name in Item 24.

Item 25
Transporter 3 EPA ID Number: Must enter Transporter 3 phone number in Item O. (shaded area to right)

Item 26
Name of Transporter 4: Also must write the number 4 in the blank above transporters name in Item 26.

Item 27
Transporter 4 EPA ID Number: Must enter Transporter 4 phone number in Item Q (shaded area to right)

Items 28 a. - i. Proper Shipping Descriptions: In some cases continuation sheets are used only to identify additional transporters, but if there are more line items needed for a single manifest, then Item 28 is indicated. Proper Shipping Name, Hazard Class, ID Number, and Packing Group. Refer to for Item 11.

Uniform Hazardous Waste Manifest

Item 29

Containers: Refer to for Item 12.

Item 30

Total Quantity: Refer to for Item 13.

Item 31

Units of Measure: Refer to for Item 14.

Section R. (shaded)

EPA Waste Codes: Refer to section I.

Section S. (shaded)

Additional Descriptions for Materials Listed Above: Refer to section J.

Section T. (shaded)

Handling Codes for Wastes Listed Above: Refer to section K.

Item 32

Special Handling Instructions and Additional Information: Refer to Item 15.

Items 33 and 34

Printed Names, Dates, and Signatures of Transporters 3 and 4.

Item 35

Discrepancy Indication Space: Refer to Item 19.

Note: Further continuation sheets should be utilized as described above for additional transporters and/or line items. Only page 1 needs to be signed by the Generator (designated Air Force person), but all of the "Generator Copy" pages must be pulled. The Contractor shall return to Generator (see Item 3 for appropriate generator address) "Generator Copy" of the manifest with a copy of Land Disposal Restriction Forms, Lab-Pack Attachments, Airway Bills, and/or any other associated paperwork required to accompany the manifest. The Air Force will allow the Contractor to retain the "State Or File Copy" to fulfill their contract requirement of transmitting them to A.D.E.C.

*****The hazardous and non hazardous waste manifest which are explained and illustrated in attachments and figures 4 and 5 have been modified to fulfill the requirements in 49 CFR 172.205(h) allowing the manifest to also be a shipping paper. The statement in item 15 of attachment 4 is optional and would only be required if the shipper wishes to use the manifest for a shipping paper for air shipments. The inclusion of the proper shippers certification included in the Non-hazardous Waste manifest is likewise optional and would only be required if the shipper wishes to use the manifest for a shipping paper requiring this certification. The inclusion of the 24 Hour Emergency Phone Number and the Emergency Response Guidebook (ERG) number will remain required entries.***

Non-Hazardous Waste Manifest

The Contractor shall ensure that all wastes shipped from Air Force sites and stations are specifically identified on shipping papers. The Contractor will further insure The Non-Hazardous Waste Manifest is completed in accordance with the instructions provided in **Attachment 4** of this booklet with these exceptions:

1) **Section D and F** Shaded Transporter's Phone of UHWM is **Section B and D** Transporter's 1 and 2 Phone of the N-HWM.
2) **Section F (shaded)** Facility's Phone of UHWM is **Section F** of the N-HWM.
3) **Section I. (shaded)** EPA Waste Codes of UHWM is not applicable to the N-HWM.
4) **Section J. (shaded)** Additional Descriptions for Materials Listed Above of UHWM is **Section G** of the N-HWM.

Non-Hazardous Waste Manifests are filled out much the same as Uniform Hazardous Waste Manifests. The sections should contain the same information. The most common error with Non-Hazardous Waste Manifests is the perception that because it is not RCRA waste, it is not regulated. The very name of the document (Non-Hazardous Waste Manifest) reinforces that perception. The fact is, DOT regulated hazardous materials are commonly shipped using Non-Hazardous Waste Manifests, and the Proper Shipping Description with Proper Shipping Name, Hazard Class, ID Number, and Packing Group as listed in the Hazardous Materials Table in 49 CFR 172.101 must be used. It is 611 ASG policy to use Non-Hazardous Waste Manifests to ship hazardous materials that are not hazardous wastes because Non-Hazardous Waste Manifests contain all of the elements necessary to adequately track what is being shipped from the sites for treatment, destruction, recycling, or any other form of disposal.

Use of the Non-Hazardous Waste Manifest as Shipping Paper (**optional**)
The most significant difference between the non-hazardous waste manifest and the hazardous waste manifest is in the Generator's Certification. In the Non-Hazardous Waste Manifest, it states only that the materials described above are not subject to federal regulations for reporting proper disposal of hazardous waste. It may become advantageous for the contractor to use the manifest as shipping paper as allowed in 49 CFR 172.205(h) if the requirements of 49 CFR Subpart C-Shipping Papers are met. Since the Generator's Certification does not address the Shipper's Certification requirements for transportation of hazardous materials as it does on the Uniform Hazardous Waste Manifest, it must be added in Item 15. The Shipper's Certification must be printed (manually or mechanically) exactly as described in 49 CFR 172.204 (a)(2).

"I hereby declare that the contents of this consignment are fully and accurately Described above by proper shipping name and are classified, packed, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations."

In the case of air transportation, the declaration described in 49 CFR 172.204 (b)(3) must be added.

"This shipment is within the limitations prescribed for passenger aircraft/cargo aircraft only." (delete non applicable)

This page is not used

Sampling Objectives

This attachment fulfills three objectives. It exemplifies the decision process in selecting analytical protocols with the intent to recycle/reclaim 611 wastes. It demonstrates how physical data, regulatory knowledge and familiarization with these instructions contribute to these goals. Thirdly, it supplies hypothetical data to illustrate entries for required forms and manifests.

Hypothetical Scenario

611 awards a contract to Real Clean Inc., AF Project No. 00123. The contract includes the contractor to empty a 1,000-gallon fuel storage tank (FST) at Anvil Mountain RSS. The SOW states the FST contains 400 gallons of used oil contaminated with gasoline and requires waste determination (analytical testing), characterization and shipment to an off-site facility for recycle/reclaim/or disposal of the product.
The contractor, now on-site, instructs its qualified personnel to commence activities associated with the FST. The SOW states the contractor will perform physical and analytical characterization of the tank contents. The contractor during physical characterization discovers:

a. The storage tank does contain 400 gallons of product.

b. However, the tank contents are multi phased containing 50% oil phase (used oil contaminated with gasoline), 40% aqueous phase (water) and 10% Tank bottoms (solids).

Assumptions:
- The contractor has thoroughly reviewed the applicable 611 Operating Instructions, including attachments, figures and tables. The contractor is cognizant that the Air Force prefers to recycle/reclaim its waste products over disposal as a hazardous waste.
- The contractors qualified personnel has regulatory knowledge including programs within RCRA granting exemptions and exclusions for generators wishing to recycle/reclaim their wastes (e.g. 40 CFR Part 279: Used Oil Regulations).

Sample collection reasoning:
The contractor qualified person, after reviewing the turn-in procedures for DRMO, notices that the Contract Line Item Number (CLIN) used for recycling used oil under (see attachment 3B CLIN selection criteria, then Table 3 DRMO CLIN selection listing), CLIN 9902RR. His CLIN refers to Clause 53 in the DRMO contract (see attachment 3C CLIN Clauses) which excludes products containing over 15% aqueous phase by volume from the non-regulated recycling CLIN.
The contractor, being knowledgeable of the regulations and having access to a carbon absorption unit, realizes that the aqueous phase if sampled separately and found not regulated under 40 CFR 261 Subpart C, may then:
a. Be separated from the waste stream creating a new non-regulated waste stream, thereby, qualifying the used oil phase under CLIN 9902RR, or
Note: Only applies if analysis proves the used oil to be within used oil burn-specifications.

b. be treated on-site and discharged.
Note: The contractor must coordinate any proposed treatment for discharge with the AF Project Manager and satisfy any further requirements of the Air Force and/or ADEC.

Analytical testing protocols requested from a State Certified laboratory should be:

Oil and solid Phases: Oil burning analysis with a note requesting that if the sample fails for halogenated compounds (exceeds 1000 ppm) to perform analysis which lists and quantifies the halogenated compounds present in the sample (EPA method 8260).

Attachment 6

Sampling Objectives

Assume laboratory data showed:

- Arsenic: 3 ppm (regulated in 40 CFR Part 279 at >10 ppm).
- Cadmium: 1 ppm (regulated in 40 CFR Part 279 at >10 ppm).
- Chromium: 7 ppm (regulated in 40 CFR Part 279 at >10 ppm).
- Lead: 28 ppm (regulated in 40 CFR Part 279 at >100 ppm).
- Flash point: **92°F** (regulated in 40 CFR Part 279 at <100°F).
- Total halogens: 240 ppm (Exempt from 40 CFR Part 279 <1000 ppm).

Note: See 40 CFR 279.11 Table 1 footnote [2] for further clarification of total halogens allowed.

Aqueous phase**:** Waste Characterization to include: Ignitability, pH, reactivity as a minimum and BTEX.
Assume the laboratory data showed:

- Flash point: >200°F (regulated by RCRA 261 Subpart C at ≤ 140°F).
- pH: 7 (regulated by RCRA 261 Subpart C at <2 and >12)
- Reactivity Cyanide: 50 ppm (regulated by RCRA 261 Subpart C at 250 ppm)
- Reactivity Sulfide: 100 ppm (regulated by RCR A261 Subpart C at 500 ppm)
- **B**enzene: **45 ppm** (regulated by RCRA 261 Subpart C at 0.5 ppm).
- **T**oluene:
- **E**thylbenzene:
- **X**ylenes:

These are not regulated constituents in RCRA 261 Subpart C. Their presence along with benzene may indicate gasoline contamination.

Note: the aqueous portion to contain Benzene (D018) above the regulatory levels in 40 CFR 261

Regulatory determinations

The analytical data shows:

1. The used oil and solid phase passed the used oil burn specification analysis. This product exceeded the *On-specification* parameters (see 40 CFR 279.11 Table 1) and must be managed as *Off-specification* used oil for energy recovery and comply with the requirements as stated in 40 CFR 279 Subpart H.

2. The aqueous phase if left commingled with the oil and solid phases regulatory speaking can also be regulated under 40 CFR 279 used oil regulations.

3. The aqueous phase if separated and judged on characteristic criteria (see 40 CFR 261 Subpart C) it would be considered a hazardous waste.

Contractor summation of the options presented to the Air Force should be similar to these:

Option 1: Recycle/reclaim the whole waste stream by using a commercial recycler which can accept as little as 20% recoverable used oil fuel for energy recovery. This option will neither effect regulatory status nor the off-site shipment time line. (see Figure 5B, which represents this option on a Non-Hazardous Waste Manifest).

Option 2: Separate the tanks contents into two waste streams separating the aqueous phase from the oil/solid phases, thereby allowing the oil/solids to be recycled/reclaimed and disposing the water portion as a regulated waste. This option will cause the sites status to be that of a Small Quantity Generator with substantially less disposal costs with a 270-day off-site shipment time line.

Option 3: Ship the whole waste stream to DRMO as a regulated waste. This option will cause the sites status to be that of a Large Quantity Generator with potentially large disposal costs with a 90-day off-site shipment time line (see Figures 1B, 3B and 4B which represents this option on a DRMO required forms: Hazardous Waste Profile Sheet, Disposal Turn-In Document and a Uniform Hazardous Waste Manifest).

HAZARDOUS WASTE PROFILE SHEET

PART I PAGE 1 of 2

A. GENERAL INFORMATION WASTE PROFILE NO:

1. GENERATOR NAME

2. FACILITY ADDRESS | 3. GENERATOR USEPA ID

5. ZIP CODE | 4. GENERATOR STATE ID

6. TECHNICAL CONTACT | 7. TITLE: Environmental Protection Specialist | PHONE

B. 1. NAME OF WASTE :
2. USEPA / or / STATE WASTE CODE(S) :
3. PROCESS GENERATING WASTE:
4. PROJECTED ANNUAL VOLUME / UNIT: 5. MODE OF COLLECTION:
6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (i.e. , F020. F021. F022 . FO23. F026. F027. OR F028)?
☐ YES ☐ NO
7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? ☐ YES ☐ NO
HAS AN EXEMPTION BEEN GRANTED? ☐ YES ☐ NO
DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? ☐ YES ☐ NO REFERENCE STANDARDS :

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

COLOR: _____
DENSITY _____ BTU/LB. : _____
TOTAL SOLIDS: _____ ASH CONTENT: _____
LAYERING: ☐ MULTILAYERED ☐ BILAYERED ☐ SINGLE PHASE

2. RCRA CHARACTERISTICS
PHISICAL STATE: ☐ SOLID ☐ LIQUID ☐ SEMI-SOLID
☐ GAS ☐ OTHER
TREATMENT GROUP: ☐ WASTEWATER ☐ NON-WASTEWATER
☐ IGNITABLE (D001) ☐ REACTIVE (D003)
FLASH POINT (F): ☐ WATER REACTIVE
☐ HIGH TOC (> 10%) ☐ CYANID REACTIVE
☐ LOW YOC (< 10%) ☐ SULFIDE REACTIVE
☐ CORROSIVE (D002) ☐ TOXICITY CHARACTERISTIC
ph : (SEE REVERSE FOR LISTING)
☐ CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

COPPER _____ PHENOLICS _____
NICKLE _____ TOTAL HALOGENS _____
ZINK _____ VOLATILE ORGANICS _____
CHROMIUM PCBs
HEX _____ _____
(OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
TOTAL	100%	

5. SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL? ☐ YES ☐NO
PROPER SHIPPING NAME:

HAZARD CLASS : U.N. or N.A. #:
ADDITIONAL DESCRIPTION :
METHOD OF SHIPMENT: ☐ BULK ☐ DRUM ☐ OTHER
CERCLA REPORTABLE QUANTITY (RQ) :
EMERGENCY RESPONSE PAGE
DOT PUBLICATION 5800.4 PAGE # _____ EDITION (YR)
SPECIAL HANDLING INFORMATION:

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
☐ CHEMICAL ANALYAS *(ATTACH TEST RESULTS)*
☐ USER KNOWLEDGE *(ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements)*

I, , HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS TO THE BEST OF MY NOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTIVE DATE

DRMS Form 1930 (COMPUTER GENERATED)

Figure 1A **Hazardous Waste Profile Sheet DRMS Form 1930**

TOXICITY CHARACTORISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA NW No.	(mg/L)	CONCAMINANT	EPA NW No.	(mg/L)
☐ARSENIC	D004		☐HEXACHLORO-1.3.-BUTADIENE	D033	
☐BARIUM	D005		☐HEXACHLOROETHANE	D034	
☐BENZENE	D018		☐LEAD	D008	
☐CADMIUM	D006		☐LINDANE	D013	
☐CARBON TETRACHLENE	D019		☐MERCURY	D009	
☐CHLOROANE	D020		☐METHOXYCHLOR	D014	
☐CHLOROBEZENE	D021		☐METHYL ETHYL KETONE	D035	
☐CHLOROFORM	D022		☐NITROBENZENE	D036	
☐CHROMIUM	D007		☐PENTACHLOROPHENOL	D037	
☐O-CRESOL	D023		☐PYRIDINE	D038	
☐M-CRESOL	D024		☐SELENIUM	D010	
☐P-CRESOL	D025		☐SILVER	D011	
☐CRESOL	D026		☐TETRACHLOROETHYLENE	D039	
☐2.4-D	D016		☐TOXOPHENE	D015	
☐1.4-DICHLOROBENZENE	D027		☐TRICHLOROETHYLENE	D040	
☐1.2-DICHLOROETHANE	D028		☐2.4.5-TRICHLOROPHENOL	D041	
☐1.1-DICHLOROETHYLENE	D029		☐2.4.6-TRICHLOROPHENOL	D042	
☐2.4-DINITROTOLUENE	D030		☐2.45-TP (SILVEX)	D017	
☐ENDRIN	D012		☐VINYL CHLORIDE	D043	
☐HEPTACHLOR(AND ITS HYDROXIDE)	D031				
☐HEXACHLOROBENZENE	D032				

PART III

FOR DRMO USE ONLY

DRMO VERIFICATION

1. DATE VERIFIED: _____

2. RESULTS ___ ATTACHED

ph _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP_____

_____

_____

_____

Hazardous Waste Profile Sheet DRMS Form 1930 Figure 1B

HAZARDOUS WASTE PROFILE SHEET

PART I PAGE 1 of 2

A. GENERAL INFORMATION

WASTE PROFILE NO: 611-9102RR-03

1. GENERATOR NAME
USAF-Anvil Mountain

2. FACILITY ADDRESS
c/o 611 CEVC, 10471 20th Street, STE 302
Elmendorf AFB, Alaska

5. ZIP CODE
99506-2200

3. GENERATOR USEPA ID
AKD983075292

4. GENERATOR STATE ID

6. TECHNICAL CONTACT
Larry Pellegrino

7. TITLE: Environmental Protection Specialist

PHONE
(907) 552-1617

B. 1. NAME OF WASTE : Used Oil contaminated with Leaded Gasoline
2. USEPA / or / STATE WASTE CODE(S) : D001 D018 D008
3. PROCESS GENERATING WASTE: Tank Cleaning
4. PROJECTED ANNUAL VOLUME / UNIT: (one time generation) 5. MODE OF COLLECTION:Drum
6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (i.e. , F020. F021. F022 . FO23. F026. F027. OR F028)?
☐ YES ☒ NO
7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? ☒ YES ☐ NO
HAS AN EXEMPTION BEEN GRANTED? ☐ YES ☒ NO
DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? ☐ YES ☒ NO REFERENCE STANDARDS : 268.40

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

COLOR: _____
DENSITY _____ BTU/LB. : _____
TOTAL SOLIDS: _____ ASH CONTENT: _____
LAYERING: ☐ MULTILAYERED ☐ BILAYERED ☐ SINGLE PHASE

2. RCRA CHARACTERISTICS
PHISICAL STATE: ☐ SOLID ☒ LIQUID ☐ SEMI-SOLID
☐ GAS ☐ OTHER
TREATMENT GROUP: ☐ WASTEWATER ☒ NON-WASTEWATER
☒ IGNITABLE (D001) ☐ REACTIVE (D003)
FLASH POINT (F): 92 F ☐ WATER REACTIVE
☒ HIGH TOC (> 10%) ☐ CYANID REACTIVE
☐ LOW YOC (< 10%) ☐ SULFIDE REACTIVE
☐ CORROSIVE (D002) ☒ TOXICITY CHARACTERISTIC
ph : (SEE REVERSE FOR LISTING)
☐ CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

COPPER		PHENOLICS	
NICKLE		TOTAL HALOGENS	240 ppm
ZINK		VOLATILE ORGANICS	
CHROMIUM HEX		PCBs	
(OTHER)			

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Used Oil		20-85%
Gasoline		1-5%
Water		15-80%
Tank Solids		0-10%
TOTAL	100%	

5. SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL? ☒ YES ☐NO
PROPER SHIPPING NAME: RQ Waste Flammable Liquids, n.o.s. (Used Oil containing Gasoline), 3, UN1993, PGIII

HAZARD CLASS : 3 U.N. or N.A. #: UN1993
ADDITIONAL DESCRIPTION : (Used Oil containing Gasoline)
METHOD OF SHIPMENT: ☐ BULK ☒ DRUM ☐ OTHER
CERCLA REPORTABLE QUANTITY (RQ) : 100 lb.
EMERGENCY RESPONSE PAGE
DOT PUBLICATION 5800.4 PAGE # 128 EDITION (YR) 1996
SPECIAL HANDLING INFORMATION: None

6. GENERATOR CERTIFICATION
BASIS FOR INFORMATION
☒ CHEMICAL ANALYAS *(ATTACH TEST RESULTS)*
☐ USER KNOWLEDGE *(ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements)*

I, Larry K Pellegrino, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS TO THE BEST OF MY NOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTIVE DATE 01/31/99

DRMS Form 1930 (COMPUTER GENERATED)

Figure 1B **Hazardous Waste Profile Sheet DRMS Form 1930**

TOXICITY CHARACTORISTIC LIST

EFFECTIVE 25 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA NW No.	(mg/L)	CONCAMINANT	EPA NW No.	(mg/L)
☐ARSENIC	D004		☐HEXACHLORO-1.3.-BUTADIENE	D033	
☐BARIUM	D005		☐HEXACHLOROETHANE	D034	
☒BENZENE	D018	45 ppm	☒LEAD	D008	28 ppm
☐CADMIUM	D006		☐LINDANE	D013	
☐CARBON TETRACHLENE	D019		☐MERCURY	D009	
☐CHLOROANE	D020		☐METHOXYCHLOR	D014	
☐CHLOROBEZENE	D021		☐METHYL ETHYL KETONE	D035	
☐CHLOROFORM	D022		☐NITROBENZENE	D036	
☐CHROMIUM	D007		☐PENTACHLOROPHENOL	D037	
☐O-CRESOL	D023		☐PYRIDINE	D038	
☐M-CRESOL	D024		☐SELENIUM	D010	
☐P-CRESOL	D025		☐SILVER	D011	
☐CRESOL	D026		☐TETRACHLOROETHYLENE	D039	
☐2.4-D	D016		☐TOXOPHENE	D015	
☐1.4-DICHLOROBENZENE	D027		☐TRICHLOROETHYLENE	D040	
☐1.2-DICHLOROETHANE	D028		☐2.4.5-TRICHLOROPHENOL	D041	
☐1.1-DICHLOROETHYLENE	D029		☐2.4.6-TRICHLOROPHENOL	D042	
☐2.4-DINITROTOLUENE	D030		☐2.45-TP (SILVEX)	D017	
☐ENDRIN	D012		☐VINYL CHLORIDE	D043	
☐HEPTACHLOR(AND ITS HYDROXIDE)	D031				
☐HEXACHLOROBENZENE	D032				

PART III

FOR DRMO USE ONLY

DRMO VERIFICATION

1. DATE VERIFIED: _____

2. RESULTS ___ ATTACHED

ph _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP_____

_____

_____

_____

Notification For Waste Restricted Form Land Disposal DRMS Form 1851

NOTIFICATION FOR WASTE RESTRICTED FROM LAND DISPOSAL

GENERATOR NAME:

MAILING ADDRESS:

US EPA NUMBER: | **MANIFEST NUMBER:**

MANIFEST LINE #	RCRA WASTE CODE	SUBCATEGORY CODE	TREATABILITY CODE	F-LISTED CONSTITUENT CODE	UNDERLYING HAZARDOUS CONSTITUENT CODE

DIRECTIONS FOR COMPLETING THE LDR NOTIFICATION

1. Record on the notification the generator name, mailing address, US EPA ID number, and manifest number.
2. Record the manifest line item number.
3. List-all RCRA waste codes for each manifest line item.
4. Record the subcategory code (from page 3), if applicable. If the waste does not have a subcategory code, record N/A in the block.
5. Record the treatability group code (from page 4).
6. If the waste is a F001 - F005 solvent, record all applicable F-Listed Constituent Codes (from page 4). If the waste is not a F001 - F005 solvent, record N/A in the block.
7. If the waste is a D001 ignitable (except High TOC), D002, or D01 2 - D043, record all applicable underlying hazardous constituent codes (from pages 5 and 6). If the waste is not a D001 ignitable (except High TOC), D002, or D01 2 -D043, record N/A in the block.
8. Select the most appropriate certification statement (page 2), sign and date the form.

DRMS FORM 185 1, MAR 96 (EF)

Page 1 of 6

Figure 2

Notification For Waste Restricted Form Land Disposal DRMS Form 1851

LDR CERTIFICATION

Select the most appropriate certification. Sign and date this form.

☐ I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268, subpart D and all applicable prohibitions set forth in40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (40 CFR 268.7(a)(2)(ii))

☐ I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any wastes at Appendix IV to part 268. 1 am aware that there are significant penalties for submitting a false certification including possibility of fine or imprisonment. (40 CFR 268.7(a)(8))

☐ I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. 1 am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (40 CFR 268.7(b)(5)(ii))

☐ I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (40 CFR 268.7(b)(5)(iv))

☐ I certify under penalty of law that the debris have been treated in accordance with the requirements of 40 CFR 268.45. 1 am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment. (40 CFR 268.7(d)(3)(iii))

Signature : _____ **Title:** _____ **Date:** _____

Notification For Waste Restricted Form Land Disposal DRMS Form 1851

WASTE CODE SUBCATEGORIES					
CODE	1	2	3	4	5
D001	HIGH TOC IGNITABLE	ALL OTHER IGNITABLES MANAGED IN NON-CWA/NON-CWA EQUIVALENT/NON-CLASS I SDWA SYSTEMS	ALL OTHER IGNITABLES MANAGED IN CWA/CWA EQUIVALENT/CLASS I SDWA SYSTEMS		
D002	CORROSIVE WASTES MANAGED IN NON-CWA/NON-CWA EQUIVALENT/NON-CLASS I SDWA SYSTEM	CORROSIVE WASTES MANAGED IN CWA/CWA EQUIVALENT/ CLASS I SDWA SYSTEMS			
D003	REACTIVE CYANIDES	REACTIVE SULFIDES	EXPLOSIVES	WATER REACTIVES	OTHER REACTIVES
D006	CADMIUM CONTAINING BATTERIES				
D008	LEAD ACID BATTERIES				
D009	HIGH MERCURY-ORGANIC (NONWASTEWATER)	HIGH MERCURY - INORGANIC (NON-WASTEWATER)	LOW MERCURY (NON-WASTEWATER)	MERCURY CONTAINING WASTEWATER	
P047	4,6 DINITRO-O-CRESOL	4,6 DINITRO-O-CRESOL SALTS			
P065	NON-INCINERATOR OR NON-RMERC RESIDUES	INCINERATOR OR RMERC RESIDUE > OR EQUAL TO 260 MG/KG TOTAL MERCURY	RMERC RESIDUE < 260 MG/KG TOTAL MERCURY	INCINERATOR RESIDUE < 260 MG/KG TOTAL MERCURY	ALL WASTEWATERS
P092	NON-INCINERATOR OR NOW RMERC RESIDUES	INCINERATOR OR RMERC RESIDUE > OR EQUAL TO 260 MG/KG TOTAL MERCURY	RMERC RESIDUE, <260 MG/KG TOTAL MERCURY	INCINERATOR RESIDUE < 260 MG/KG TOTAL MERCURY	ALL WASTEWATERS
U151	HIGH MERCURY	RMERC RESIDUES, <260 MG/KG TOTAL MERCURY	NON-RMERC RESIDUES, < 260 MG/KG TOTAL MERCURY	ALL WASTEWATERS	
U240	2,4-DICHLOROPHENOXYACETIC ACID	2,4-DICHLOROPHENOXYACETIC ACID SALTS AND ESTERS			
F003 and/or F005	SOLVENT WASTE CONTAINING ONLY F-LISTED SOLVENTS CARBON DISULFIDE, CYCLOHEXANONE AND/OR METHANOL	F006 SOLVENT WASTE CONTAINING 2-ETHOXYETHANOL AS THE ONLY LISTED F001-6 SOLVENT	F006 SOLVENT WASTE CONTAINING 2-NITROPROPANE AS THE ONLY LISTED F00 1 -5 SOLVENT		

Figure 2

Notification For Waste Restricted Form Land Disposal DRMS Form 1851

F-LISTED CONSTITUENT CODES			
CODE	**CONSTITUENT**	**CODE**	**CONSTITUENT**
1	Acetone	15	Methanol
2	Benzene	16	Methylene Chloride
3	N-Butyl Alcohol	17	Methyl Ethyl Ketone
4	Carbon Disulfide	18	Methyl Isobutyl Ketone
5	Carbon Tetrachloride	19	Nitrobenzene
6	Chlorobenzene	20	Pyridine
7	Cresol (B,M, or P Isomers)	21	Tetrachloroethylene
8	Cresylic Acid	22	Toluene
9	Cyclohexanone	23	1,1,1 Trichloroethane
10	o-Dichlorobenzene	24	1,1,2 Trichloroethane
11	Ethyl Acetate	25	1,1,2 Trichloro-1,2,2 Trifluoroethane
12	Ethyl Benzene	26	Trichloroethylene
13	Ethyl Ether	27	Trichloromonofluoromethane
14	Isobutyl alcohol	28	Xylenes Mixed Isomers

TREATABILITY GROUP CODES	
CODE	**CONSTITUENT**
WW	Wastewater
NWW	Nonwastewater

Notification For Waste Restricted Form Land Disposal DRMS Form 1851

UNIVERSAL TREATMENT STANDARDS UNDERLYING HAZARDOUS CONSTITUENTS

CODE	CONSTITUENT	CODE	CONSTITUENT	CODE	CONSTITUENT
1	Acenaphthylene	48	2-Chloronapthalene	95	Diphenylamine
2	Acenaphthene	49	2-Chlorophenol	96	Diphenylnitrosa mine
3	Acetone	50	3-Chloropropylene	97	1,2-Diphenylhydrazine
4	Acetonitrile	51	Chrysene	98	Disulfoton
5	Acetophenone	52	o cresol	99	Endosulfan 1
6	2-Acetylaminoflourene	53	m-cresol	100	Endosulfan 11
7	Acrolein	54	p-cresol	101	Endosulfan sulfate
8	Acrylamide	55	Cyclohexanone	102	Endrin
9	Acrylonitrile	56	1,2-Dibromo-3-Chloropropane	103	Endrin aldehyde
10	Aldrin	57	Ethylene dibromide (1,2-Dibromomethane)	104	Ethyl acetate
11	4-aminobiphenyl	58	Dibromomethane	105	Ethyl cyanide (Prop anenitrile)
12	Aniline	59	2,4-D (2,4-Dichlorophenoxyacetic add)	106	Ethyl benzene
13	Anthracene	60	o,p'-DDD	107	Ethyl ether
14	Aramite	61	p,p'-DDD	108	bis(2-Ethylhexyl) phthalate
15	alpha-BHC	62	o,p'-DDE	109	Ethyl methacrylate
16	beta-BHC	63	p,p'-DDE	110	Ethylene oxide
17	delta-BHC	64	o,p'-DDT	111	Famphur
18	gamma-BHC	65	p,p'-DDT	112	Fluoranthene
19	Benzene	66	Dibenz(a,h)anthracene	113	Flourene
20	Benz(a)anthracene	67	Dibenz(a,e)pyrene	114	Heptachlor
21	Benzal chloride	68	m-Dichlorobenzene	115	Heptachlor epoxide
22	Benzo(b)fluoranthens	69	o-Dichlorobenzene	116	Hexachlorobenzene
23	Benzo(k)fluoranthens	70	p-Dichlorobenzene	117	Hexachlorobutadiene
24	Benz o(g h,i,)perylene	71	Dichlorodif luore methane	118	Hexachlorocyclopentadiene
25	Benzo(a)pyrene	72	1,1 Dichloroethane	119	HxCDDs All Hexachlorodibenzo-p-dioxins)
26	Bromodichloromethane	73	1,2-Dichloroethane	120	HxCDFs (All Hexachlorodibenzofurans)
27	Methyl bromide (Bromomethanel	74	1,1-Dichloroethylene	121	Hexachloroethane
28	4-Bromophenyl phenyl ether	75	trans- 1,2-Dichloroethylene	122	Hexachloropropylene
29	n-Butyl alcohol	76	2,4- Dichlorophenol	123	Indeno (1,2,3-c,d) pyrene
30	Butyl benzyl phthalate	77	2,6-Dichlorophenol	124	lodomethane
31	2-sec-Butyl-4,6 Dinitrophenol (Dinoseb)	78	1,2-Dichloropropane	125	Isobutyl alcohol
32	Carbon disulfide	79	cis- 1, 3-Dichloropropylene	126	Isodrin
33	Carbon tetrachloride	80	trans- 1,3-Dichloropropylene	127	Isosafrole
34	Chlordane (alpha & gamma isomers)	81	Dieldrin	128	Kepone
35	p-Chloroaniline	82	Diethyl phthalate	129	Methacrylonitrile
36	Chlorobenzene	83	2-4-Dimeth phenol	130	Methanol
37	Chlorobenzilate	84	Dimethyl phthalate	131	Methapyrilene
38	2-Chloro-1,3-butadiene	85	Di-n-butyl phthalate	132	Methoxychlor
39	Chlorodibromomethane	86	1,4-Dinitrobenzene	133	3-Methylcholathrene
40	Chloroethane	87	4,6-Dinitro-o-cresol	134	4,4-Methlene bis (2-Chloroaniline)
41	bis (2-Chloroethoxy) methane	88	2,4-Dinitrophenol	135	Methylene chloride
42	bis(2-Chloroethyl) ether	89	2,4-Dinitrotoluene	136	Methyl ethyl ketone
43	Chloroform	90	2,6-Dinitrotoluene	137	Methyl isobutyl ketone
44	bisf2-Chloroisopropyl) other	91	Di-n-octyl phthalate	138	Methyl methacrylate
45	p-Chloro-m-cresol	92	p-Dimethylaminoazabenzene	139	Method methansulfonate
46	2-Chloroethyl vinyl other	93	Di-n-p ropylnitros amino	140	Methyl parathion
47	Chloromethane (Methyl Chloride)	94	1,4 Dioxane	141	Napthalene

DRMS FORM 185 1, MAR 96 (EF)

Figure 2

Notification For Waste Restricted Form Land Disposal DRMS Form 1851

UNIVERSAL TREATMENT STANDARDS UNDERLYING HAZARDOUS CONSTITUENTS					
CODE	**CONSTITUENT**	**CODE**	**CONSTITUENT**	**CODE**	**CONSTITUENT**
142	2-Napthylamine	167	Phorate	192	2,4,6-Trichlorophenol
143	o-Nitroaniline	168	Phthalic acid	193	1,2,3-Trichloropropane
144	p-Nitroaniline	169	Phthalic anhydride	194	1,1,2-Trichloro-1.2,2-trifluoroethane
145	Nitrobenzene	170	Pronamide	195	tris-(2,3-Dibromopropyl) phosphate
14R	5-Nitro-o-toluidine	171	Pyrene	196	Vinyl chloride
147	o-Nitrophenol	172	Pyridine	197	Xylenes-mixed isomers
148	p-Nitrophenol	173	Safrole	198	Antimony
149	N-Nitrosodiethylamine	174	Silvex (2,4,5-TP)	199	Arsenic
150	N-Nitrosodimethylamine	175	2,4,5-T (2.4.5-Trichlororophenoxyacetic Acid)	200	Barium
151	N-Nitroso-di-n-butylamine	176	1,2,4,5-Tetrachlorobenzene	201	Beryllium
152	N -Nitrosomethylethylamine	177	TCDDs (All Tetrachlorodibenzo-p-doxins)	202	Cadmium
153	N-Nitrosomorpholine	178	TCDFs (All Tetrachlorodibenzofurans)	203	Chromium (Total)
154	N-Nitrosopiperidine	179	1, 1, 1,2-Tetrachloroethane	204	Cyanides (Total)
155	N-Nitrosopyrrolidine	180	1, 1,2,2-Tetrachloroethane	205	Cyanides (Amenable)
156	Parathion	181	Tetrachloroethylene	206	Fluoride
157	Total PCBs	182	2,3,4,6-Tetrachlorophenol	207	Lead
158	Pentachlorobenzene	183	Toluene	208	Mercury-NonWastewater from RETORT
159	PeCDDs (All Pentachlorodibenzo-p-doxins)	184	Toxaphene	209	Mercury - All others
160	PeCDFs (All Pentachlorodibenzofurans)	185	Bromoform (Tribromomethane)	210	Nickel
161	Pentachloroethane	186	1,2,4-Trichlorobenzene	211	Selenium
162	Pentachloronitrobenzene	187	1, 1,1 -Trichloroethane	212	Silver
163	Pentachlorophenol	188	1, 1,2-Trichloroethane	213	Sulfide
164	Phenacetin	189	Trichloroethylene	214	Thallium
165	Phenanthrene	190	Trichloromonofluoromethane	215	Vanadium
166	Phenol	191	2,4,5-Trichlorophenol	216	Zinc

- Vanadium and Zinc are not "underlying hazardous constituents" in characteristic wastes, according to the definition at 268.2(i)

DRMS FORM 185 1, MAR 96 (EF)

Figure 3A

Disposal Turn-In Document DD Form 1348-1A

1 2 3 4 5 6 7	23 24 25 26 27 28 29	45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73	74 75 76 77 78 79 80	1. TOTAL PRICE	2. SHIP FROM	3. SHIP TO
DOC IDENT RI FROM M&S	UNIT ISS QUANITITY	SUPPLE-MENTARY ADDRESS SER SIG FUND DIS-TRI-BU-TION PRO-JECT PRI REQD DELDATE ADV RI O/P COND MGT	UNIT PRICE DOLLARS CTS	DOLLARS CTS	c/o 611 CEVC BLDG 10471 EAFB AK 99506	SZ362D DRMO-UCCB BLDG 1237 Elmendorf AFB AK 99506-4236
30 NA					4. MARK FOR	

5. DOC DATE	6. NMFC	7. FRT RATE	8. TYPE CARGO	9. PS

10. QTY. REC'D	11. UP	12. UNIT WEIGHT	13. UNIT CUBE	14. UFC	15. SL

16. FREIGHT CLASSIFICATION NOMENCLATURE

17. ITEM NOMENCLATURE

18. TY CONT	19. NO CONT	20. TOTAL WEIGHT	21. TOTAL CUBE

22. RECEIVED BY	23. DATE RECIEVED

24. DOCUMENT NUMBER & SUFFIX (30-44)

25. NATIONAL STOCK NO. & ADD (8-22)

EPA WASTE CODES:

26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-56) UP (74-80)

THIS PACKAGE MEETS OR EXCEEDS 49 CFR 170-180 *SIGNATURE:* _____

CLIN : @ /LBS. TOTAL: MANIFEST DOC NO: ACCUMULATION START DATE/O.S.D:

Bill to: POC: PHONE NO: 552-1617

27. ADDITIONAL DATA

PROFILE NO:

MSDS NO: ANALYSIS NO:

Copy to: 611 CES/CEVC
10471 20th Street, STE 302
Elmendorf AFB, AK 99506-2200 EPA ID No.

Figure 3B

Disposal Turn-In Document DD Form 1348-1A
Populated 1348-1A
(All information illustrated on this form is inserted solely for the purpose as an example)

DOC	IDENT	RI FROM	M&S	UNIT	ISS	QUANITITY	SUPPLEMENTARY ADDRESS	SER	SIG	FUND	DISTRIBUTION	PROJECT	PRI	REQD	DELDATE	ADV	RI	O/P	COND	MGT	UNIT PRICE DOLLARS	UNIT PRICE CTS	DOLLARS	CTS
			DM	8		30										NA			H		1	69	5,881	20

1. TOTAL PRICE

2. SHIP FROM
FB5007 Anvil Mtn RRS
c/o 611 CEVC
BLDG 10471
EAFB AK 99506

3. SHIP TO
SZ362D
DRMO-UCCB
BLDG 1237
Elmendorf AFB
AK 99506-4236

4. MARK FOR
HW

24. DOCUMENT NUMBER & SUFFIX (30-44)
FB5007 9031 T001

5. DOC DATE	6. NMFC	7. FRT RATE	8. TYPE CARGO	9. PS

10. QTY. REC'D	11. UP	12. UNIT WEIGHT	13. UNIT CUBE	14. UFC	15. SL

25. NATIONAL STOCK NO. & ADD (8-22)
9150-00-Used Oil

16. FREIGHT CLASSIFICATION NOMENCLATURE
RQ Waste Flammable Liquids, n.o.s. (Used Oil containing Gasoline) 3, UN1993, PG III

17. ITEM NOMENCLATURE
Used Oil contaminated with Gasoline

18. TY CONT	19. NO CONT	20. TOTAL WEIGHT	21. TOTAL CUBE
55 Gal 1A2	8	3,480 lb.	

22. RECEIVED BY	23. DATE RECIEVED

EPA WASTE CODES: D001 D018 D008

26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-56) UP (74-80)

THIS PACKAGE MEETS OR EXCEEDS 49 CFR 170-180 *SIGNATURE:* _____

CLIN 9102RR:$1.69 @ 3,480/LBS. TOTAL: $5.881.20 MANIFEST DOC NO: OME01 ACCUMULATION START DATE/O.S.D: 01/01/99

Bill to: FB5007 POC: LARRY K PELLEGRINO PHONE NO: 552-1617

27. ADDITIONAL DATA

Work performed by Real Clean Inc.
Project No.: 00123
Tank No. 045 cleaning for product change

PROFILE NO: 611-9102RR-03

MSDS NO: N/A ANALYSIS NO: (see attached)

Copy to: 611 CES/CEVC
10471 20th Street, STE 302
Elmendorf AFB, AK 99506-2200

EPA ID No. AKD983075292

Uniform Hazardous Waste Manifest Figure 4A

24 HOUR EMERGENCY RESPONSE PHONE NUMBER:

Please print or type. (Form designed for use on elite (12 pitch) typewriter.) *Form Approved. OMB No. 2050-0039.*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of

Information in shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: US AIR FORCE-

A. State Manifest Document Number

B. State Generator's ID

4. Generator's Phone (907) 552-1617 Work performed/POC 611 CES/CEVO Attn: Larry Pellegrino

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address | **10.** US EPA ID Number

G. State Facility's ID

H. Facility's Phone

GENERATOR

11. US DOT Description *(Including Proper Shipping Name, Hazard Class and ID Number)*	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
ERG # ( )						
ERG # ( )						
ERG # ( )						
ERG # ( )						

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

r

15. Special Handling Instructions and Additional Information

This shipment is within the limitations prescribed for: (*delete non-applicable)*

PASSENGER AND CARGO AIRCRAFT | CARGO AIRCRAFT ONLY

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

If I am a large quantity generator. I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method available to me and that I can afford.

Printed /Typed Name | Signature | *Month Day Year*

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed /Typed Name | Signature | *Month Day Year*

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed /Typed Name | Signature | *Month Day Year*

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name | Signature | *Month Day Year*

Figure 4B **Uniform Hazardous Waste Manifest *(Populated Fields)***

24 HOUR EMERGENCY RESPONSE PHONE NUMBER: 1-(800) 851-8061

Please print or type. (Form designed for use on elite (12 pitch) typewriter.) *Form Approved. OMB No. 2050-0039.*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. A K D 9 8 3 0 7 5 2 9 2 — Manifest Document No. O M E 0 1

2. Page 1 of 1

Information in shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
USAF-Anvil Mountain RSS
c/o 611 CES/CEVC, 10471 20th Street, STE 302
Elmendorf AFB, AK 99506-2200

4. Generator's Phone (907) 552-4530 Attn: Tim Jackson

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: 517 ALS EAFB AK

6. US EPA ID Number: A K 8 5 7 0 0 2 8 6 4 9

C. State Transporter's ID

D. Transporter's Phone: (907) 552-3021

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
SZ362D DRMO-UCCB
BLDG 1237
ELMENDORF AFB, AK 99506-5000

10. US EPA ID Number: A K 8 5 7 0 0 2 8 6 4 9

G. State Facility's ID

H. Facility's Phone: (907) 552-7208

11. US DOT Description *(Including Proper Shipping Name, Hazard Class and ID Number)*	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
RQ Waste Flammable Liquids, n.o.s., (Used Oil containing Gasoline), 3, UN1993, PG III (RQ D018/D008: 10 lb.) ERG # (128)		8	D M	3 4 8 0	P	D001 D018 D008
ERG # ( )						
ERG # ( )						
ERG # ( )						

J. Additional Descriptions for Materials Listed Above

a. 611-9102RR-03, Used Oil contaminated W/Gasoline, Cont#: 99OME 0001 thru 0008

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

This shipment is within the limitations prescribed for: (*delete non-applicable)*

PASSENGER AND CARGO AIRCRAFT | CARGO AIRCRAFT ONLY

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

If I am a large quantity generator. I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method available to me and that I can afford.

Printed /Typed Name: Tim Jackson — Signature — Month Day Year

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed /Typed Name — Signature — Month Day Year

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed /Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name — Signature — Month Day Year

GENERATOR

Non-Hazardous Waste Manifest Figure 5A

24 HOUR EMERGENCY RESPONSE PHONE NUMBER:

Please Print or Type (Form designed for use on elite (12 pitch typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

5. Transporter 1 Company Name 6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name 8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address 10. US EPA ID Number

E. State Facility"s ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. ERG # ( )				
b. ERG # ( )				
c. ERG # ( )				
d. ERG # ( )				

G. Additional Description for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

This shipment is within the limitations prescribed for: (*delete non-applicable)*

PASSENGER AND CARGO AIRCRAFT | CARGO AIRCRAFT ONLY

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

"I hereby declare that the contents of this consignment are fully and accurately Described above by proper shipping name and are classified, packed, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations."

Printed/Typed Name | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

Figure 5B **Non-Hazardous Waste Manifest (*Populated Fields*)**

24 HOUR EMERGENCY RESPONSE PHONE NUMBER: (907) 278-7448

Please Print or Type (Form designed for use on elite (12 pitch typewriter)

NON-HAZARDOUS

1. Generator's US EPA ID No.: AK3570028669

Manifest Document No.: OME01

2. Page 1 of 1

3. Generator's Name and Mailing Address: USAF Anvil Mountain RSS
c/o 611 CES/CEVC, 10471 20th Street, STE 302
Elmendorf AFB, AK 99506-2200

4. Generator's Phone (907) 552-4530 611 CES CEVC POC: Tim Jackson

5. Transporter 1 Company Name: NORTHERN AIR CARGO
6. US EPA ID Number: AKD003845526
A. State Transporter's ID
B. Transporter 1 Phone: (907) 243-3331

7. Transporter 2 Company Name: Carlile Enterprises Inc.
8. US EPA ID Number: AKD122081243
C. State Transporter's ID
D. Transporter 2 Phone: (907) 276-7797

9. Designated Facility Name and Site Address: Energy Recovery Services Inc.
229 Whitney Road
Anchorage, AK 99501
10. US EPA ID Number: AKD980329866
E. State Facility"s ID
F. Facility's Phone: (907) 278-7448

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Flammable Liquids, n.o.s., (Used Oil containing Gasoline), 3, UN1993, PG III ERG # (128)	8	DM	3480	P
b. ERG # ( )				
c. ERG # ( )				
d. ERG # ( )				

G. Additional Description for Materials Listed Above
a. 611-9902RR-06, Off-spec Used Oil contaminated W/Gasoline, Cont#: 99OME 0001 thru 0001 thru 0008

I. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

This shipment is within the limitations prescribed for: (*delete non-applicable)*
PASSENGER AND CARGO AIRCRAFT | CARGO AIRCRAFT ONLY

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

"I hereby declare that the contents of this consignment are fully and accurately Described above by proper shipping name and are classified, packed, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations."

Printed/Typed Name: Tim Jackson | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name | Signature | Date: Month Day Year

611 Generating Sites – Three Letter Designators – U.S. EPA ID Numbers – DoDAAC – Status

Site Name	Site Designator	EPA ID Number	Status	**DODDAC NUMBER**
USAF-Anvil Mountain RRS	OME	AKD983075292	I	FB5007
USAF-Barter Island LRRS	BTI	AK5570028618	A	FB5007
USAF-Bear Creek RRS	TAL	AK1570090109	I	FB5007
USAF-Beaver Creek RRS	BVC	NonGenerator	I	FB5007
USAF-Bethel RRS	BET	AK8570090110	I	FB5007
USAF-Bullin Point SRRS	FXM	AK2570028652	A	FB5007
USAF-Campion RRS	CPN	AK2570028628	I	FB5007
USAF-Canyon Creek RRS	BIG	AK2570028629	I	FB5007
USAF-Cape Lisburne LRRS	LUR	AK1572728631	A	FB5007
USAF-Cape Newenham LRRS	EHM	AK7570028632	A	FB5007
USAF-Cape Romanzof LRRS	CZF	AK9572728633	A	FB5007
USAF-Cold Bay LRRS	CDB	AK0570028639	A	FB5007
USAF-Driftwood Bay RRS	DFB	AK3570028644	I	FB5007
USAF-Eareckson AS	SYA	AK9570028705	A	FG5027
USAF-Fort Yukon LRRS	FYU	AK3572728654	A	FB5007
USAF-Galena Airport (FOL)	GAL	AK9570028655	A	FG5024
USAF-Gold King Creek RRS	GKC	AK6570028656	I	FB5007
USAF-Granit Mountain RSS	GMT	AK3570090107	I	FB5007
USAF-Indian Mountain LRRS	UTO	AK0570028662	A	FB5007
USAF-Kalakaket Creek RRS	KKK	AK7570090111	I	FB5007
USAF-King Salmon Airport (FOL)	AKN	AK3570028669	A	FG5026
USAF-Kotzebue LRRS	OTZ	AK6570090112	A	FB5007
USAF-Lake Louise recreational area	LLR	NonGenerator	I	FB5007
USAF-Murphy Dome LRRS	MYD	AK1570028679	A	FB5007
USAF-Lonely SRRS	LNI	AK3570028677	A	FB5007
USAF-Murphy Dome LRRS	MYD	AK1570028679	A	FB5007
USAF-Naknek Recreation ANNX 1 (Rapids Camp)	NRC	NonGenerator	I	FB5007

Table 1

611 Generating Sites – Three Letter Designators – U.S. EPA ID Numbers – DoDAAC – Status

Site Name	Site Designator	EPA ID Number	Status	**DODDAC NUMBER**
USAF-Naknek Recreation ANNX 2 (Lake Camp)	NRL	NonGenerator	I	
USAF-Nikolski RRS	IKO	AK7572728684	I	FB5007
USAF-Nome Tank Farm	OMT	AK0000262170	I	FB5007
USAF-North River RRS	JNR	NonGenerator	I	FB5007
*USAF-Ocean Cape RRS	YAK	AK6570028690	I	FB5007
USAF-Oliktok LRRS	OLI	AK5570028691	A	FB5007
USAF-Pillar Mountain RRS	ADQ	AKD983075292	I	FB5007
USAF-Point Barrow LRRS	BRW	AK1570028695	A	FB5007
USAF-Point Lay LRRS	PIZ	AK9570028697	A	FB5007
USAF-Port Heiden RRS	PTH	AK3210890080	I	FB5007
USAF-Port Moller RRS	PML	AK0210890091	I	FB5007
USAF-Sparrevohn LRRS	SVW	AK5570028709	A	FB5007
USAF-Tatalina LRRS	TLI	AK1570028711	A	FB5007
USAF-Tin City LRRS	TNC	AK0570028712	A	FB5007
USAF-Unalakleet AFS	UNK	AK7570000219	I	FB5007
USAF-Wainwright SRRS	AWI	AK6570028716	AI	FB5007

*Formerly Used Defense Site (FUDS) *turned over to Corps of Engineers.*

Note: Facility status "A" or "I" denotes active or inactive facility radar.

Table 2

HELPFUL POINTS OF CONTACT

Name	Title	Phone Numbers (907)	Fax Numbers (907)	e-mail
AIR FORCE 611 CES ENVIRONMENTAL COMPLIANCE SECTION (CEVC)				
MSgt Timothy Jackson	Hazardous Waste Program Manager (HWMP)	552-4530	552-9563	timothy.jackson@elmendorf.af.mil
AIR FORCE 611 CES ENVIRONMENTAL OPERATIONS SECTION (CEVO)				
Larry Pellegrino	Environmental Protection Specialist	552-1617	552-4601	larry.pellegrino@elmendorf.af.mil
BOS CONTRACTORS				
Gary Brell (ARCTEC) LRR sites	Hazardous Materials Specialist	552-2150		
Ted Alexander (CDC)	Environmental Manager			
Galena		446-3351		
King Salmon		721-3473		
Paul Cooley (PMC) Eareckson AFS	Environmental protection Manager	272-3433		
ELMENDORF DRMO(TSD)				
Robert Morris	Environmental Protection Specialist Supervisor	552-3745	552-4672	
Sandra King	Environmental Protection Specialist	552-3456	552-4672	

Notes

DRMO CLIN Selection Listing

7000-7099 POLYCHLORINATED BIPHENYLS (**PCB's**) (40 CFR 761)			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
7000	Articles (other than transformers & capacitors) 500-4999 ppm PCB	Lb.	$1.55
7001	Articles (other than transformers; & capacitors) 500-4999 ppm PCB (drained)	Lb.	$0.90
7002	Articles (other than transformers & capacitors) 50-499 ppm PCB	Lb.	$3.10
7003	Articles (other than transformers & capacitors) 50-499 ppm PCB (drained)	Lb.	$3.10
7004	Articles (other than transformers & capacitors) less than 50 ppm PCB	Lb.	$1.20
7005	Articles (other than transformers & capacitors) less than 50 ppm PCB (drained)	Lb.	$3.10
7006	Mixed PCB3 items	Lb.	$4.30
7007	Transformers 500-4999 ppm PCB	Lb.	$4.39
7008	Transformers 500-4999 ppm PCB (drained)	Lb.	$3.30
7009	Transformers 500-4999 ppm PCB (sealed)	Lb.	$4.59
7010	Transformers 50-499 ppm PCB	Lb.	$0.95
7011	Transformers 50-499 ppm PCB (drained)	Lb.	$4.59
7012	Transformers less than 50 ppm PCB	Lb.	$0.55
7013	Transformers less than 50 ppm PCB (drained,)	Lb.	$3.10
7014	Small Capacitors 500-4999 ppm PCB	Lb.	$3.98
7015	Large Capacitors 500-4999 ppm PCB	Lb.	$3.98
7016	Small Capacitors 500-4999 ppm PCB (drained)	Lb.	$3.98
7017	Large Capacitors 500-49 99 ppm PCB (drained)	Lb.	$3.98
7018	Small Capacitors 50-499 ppm PCB	Lb.	$3.98
7019	Large Capacitors 50-499 ppm PCB	Lb.	$3.98
7020	Small Capacitors 50-499 ppm PCB (drained)	Lb.	$3.98
7021	Large Capacitors 50-499 ppm PCB (drained)	Lb.	$3.98
7022	Small Capacitors less than 4-0 ppm PCB	Lb.	$3.98
7023	Large Capacitors less than 50 ppm PCB	Lb.	$3.98
7024	Capacitors less than 50 ppm PCB (drained)	Lb.	$3.98
7025	Large Capacitors less than 50 ppm PCB (drained)	Lb.	$3.98
7026	Sweeping Compound, PCB contaminated	Lb.	$2.65
7027	Pallets, PCB contaminated	Lb.	$3.10
7028	Debris (example: rags, cans, drums, wood) PCB contaminated	Lb.	$1.20
7029	Soil, PCB contaminated	Lb.	$0.89
7030	Liquid 500-4999 ppm PCB	Lb.	$3.09
7031	Liquid 50-499 ppm PCB	Lb.	$1.25
7032	Liquid less than 50 ppm PCB	Lb.	$0.52
7033	Liquid and/or solid mixtures with PCBs less Than 50 ppm may be contaminated with (but riot limited to) solvents, oils, water	Lb.	$1.30
7034	Liquid and/or solid mixtures with PCBs 50- ppm may be contaminated with (but not limited to) solvents, oils, water	Lb.	$4.13
7035	Liquid and/or solid mixtures with PCBs 500- ppm may be contaminated with (but not limited to) solvents, oils, water	Lb.	$4.13
7036	PCB contaminated sludge (over 500 ppm)	Lb.	$3.85
7037	15CS -contaminated sludge (50-499 ppm)	Lb.	$3.85
7038	PCB contaminated sludge (less -than 50 ppm)	Lb.	$3.10
7040	Articles (other than transformers & capacitors lover 4999 ppm PCB	Lb.	$1.44
7041	Articles (other than transformers & capacitors) over 4999 ppm PCBs (drained)	Lb.	$3.10
7042	Transformers over 4999 ppm PCB	Lb.	$3.98
7043	Transformers over 4999 ppm PCB (drained)	Lb.	$3.98
7044	Transformers over 4999 ppm PCB (sealed)	Lb.	$4.28
7045	Large Capacitors over 4999 ppm PCB	Lb.	$5.19
7046	Large Capacitors over 4999 ppm PCB (drained)	Lb.	$5.19
7047	Small Capacitors over 4999 ppm PCB	Lb.	$3.98
7048	Small Capacitors over 4999 ppm PCB (drained)	Lb.	$3.98
7049	Liquid over 4999 ppm PCB	Lb.	$3.29

Table 3

DRMO CLIN Selection Listing

7000-7099 POLYCHLORINATED BIPHENYLS (**PCB's**) (40 CFR 761)			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
7050	Liquid and/or solid mixtures with PCBs over 4999 ppm, may be contaminated with (but not Limited to) solvents, oils. water	Lb.	$4.23
7100	Non-Contaminated Packing Material – may include (but not limited to) wood, paper and plastic	Lb.	$3.55
7990-7999 Special Requirements			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
7990	Overaged Surcharge for articles, items and containers when nine (9) months have elapsed between the out of service date and delivery order removal date	Lb.	$O.18
7991	Overaged surcharge for articles, items and containers when twelve (12) months have elapsed between the out of service date and delivery order removal date	Lb.	$0.26

9100-9199 IGNITABLE WASTES (40 CFR 261.21) **D001**			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
9101	Small Containers	Lb.	$1.75
9101RR	Small Containers (See Clause C.53)	Lb.	$1.77
9102	Containerized Liquids/Multi-Phase	Lb.	$1.68
9102CO	Containerized Liquids/Multi-Phase (CERCLA Wastes) (See Clauses C.67)	Lb.	$0.50
9102RR	Containerized Liquids/Multi-Phase, (See Clause C. 53)	Lb.	$1.69
9104	Containerized Solids	Lb.	$1.34
9104RR	Containerized Solids (See Clause C.53)	Lb.	$1.37
9105	Aerosols	Lb.	$1.45
9106	Bulk Liquids (pumpable)	Lb.	$1.44
9106RR	Bulk Liquids (pumpable) (See Clause C.53)	Lb.	$1.44

9200-9299 CORROSIVE WASTES (40 CFR 261.22) **D002**			
CLIN	SERVICES/SUPPLIES	Lb.	UNIT PRICE
9201	Small Containers	Lb.	$1.45
9202	Containerized Liquids/Multi-Phase	Lb.	$0.81
9202CD	Containerized Liquids/Multi-Phase (CERCLA Wastes) (See Clause C.67)	Lb.	$0.50
9202MM	Containerized Liquids/Multi-Phase, High Level Mercury/Mercury Compounds (concentrations greater than 260 ppm)	Lb.	$1.50
9202RR	Containerized Liquids/ Multi-Phase (See Clause C.53)	Lb.	$0.42
9204	Containerized Solids	Lb.	$0.32
9204MM	Containerized Solids (ATON Batteries contaminated with high levels of mercury/mercury compounds (concentrations greater than 260 ppm)	Lb.	$0.50
9204NC	Containerized Solids (Nickel (Cadmium Batteries, Wet) (See Clause C.57)	Lb.	$0.45
9205	Aerosols	Lb.	$1.25

9300-9399 REACTIVE WASTES (40 CFR 261.23) **D003**			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
9301	Small Containers	Lb.	$1.94
9302	Containerized Liquids/Multi-Phase	Lb.	$0.55
9304	Containerized Solids	Lb.	$1.35
9304LL	Containerized Solids (Lithium Batteries) (See Clause C.25 and C.70)	Lb.	$1.49

DRMO CLIN Selection Listing

9400-9499 TOXICITY CHARACTERISTIC WASTES (40 CFR 261.24) **D004-43**			
CLIN	SERVICIES/SUPPLIES	UNIT	UNIT PRICE
9401	Small Containers	Lb.	$1.10
9402	Containerized Liquids/Multi-Phase	Lb.	$0.49
9402AF	Containerized Liquids/Multi-Phase (Anti- freeze) (See Clause C.55)	Lb.	$0.60
9402CD	Containerized Liquids/Multi-Phase (CERCLA Wastes) (See Clause C.67)	Lb.	$0.40
9402FS	Containerized Liquids./Multi-Phase (Fixer/Developer Solution) (See Clause C.63)	Lb.	$0.80
9402RR	Containerized Liquids/Multi-Phase (See Clause C.53)	Lb.	$0.50
9402SD	Containerized Liquids/Multi-Phase (Solvents) (See Clause C.55)	Lb.	$0.79
9404	Containerized Solids	Lb.	$0.70
9404AB	Containerized Solids (Alkaline Batteries; (See Clause C.62)	Lb.	$0.78
9404CD	Containerized Solids (CERCLA A Wastes) (See Clause C.67)	Lb.	$0.43
9404FT	Containerized Solids (Fluorescent (See Clause C. 58)	Lb.	$0.90
9404MB	Containerized Solids (Mercury Batteries) (See Clause C. 54)	Lb.	$5.25
9404MM	Containerized Solids, High Level Mercury/Mercury Compounds (concentrations greater than 260 ppm)	Lb.	$7.50
9404NC	Containerized Solids (Nickel Cadmium Batteries, Dry) (See Clause C.57)	Lb.	$0.45
9405	Aerosols		$1.45
9406	Bulk -Liquids (pumpable)	Lb.	$0.40
9406AF	Bulk -Liquids (pumpable) (Anti-Freeze) (See Clause C.55)	Lb.	$1.98
9406RR	Bulk Liquids (pumpable) (See Clause C.35 and C.53)	Lb.	$0.39
9407	Bulk Solids	Lb.	$1.05
9407CD	Bulk Solids (CERCLA Wastes) (See Clause C.67)	Lb.	$0.18

9500-9529 SPENT SOLVENT WASTES (40 CFR 261.31) **F001-5**			
CLIN	SERVICES/SUPPLIES	*UNIT*	UNIT PRICE
9501	Small Containers	Lb.	$1.85
9502	Containerized Liquids/Multi-Phase	Lb.	$1.60
9502CD	Containerized Liquids/ Multi-Phase (CERCLA Wastes) (See Clause C.67)	Lb.	$0.90
9502SD	Containerized Liquids/Multi-Phase (Solvents) (See Clause C.55)	Lb.	$1.63
9504	Containerized Solids	Lb.	$1.98
9504CD	Containerized Solids (CERCLA Wastes) (See Clause C.67)	Lb.	$0.45
9506	Bulk Liquids (pumpable) (see Clause C.35)	Lb.	$0.75

9560-9599 DIOXIN RELATED WASTES (40 CFR 261-3 1) **F020-23, 26-28**			
CLIN	SERVICES/SUPPLIES -	UNIT	UNIT PRICE
9561	Small Containers	Lb.	$7.21
9562	Containerized Liquids s/multi-Phase	Lb.	$3.64

Table 3

DRMO CLIN Selection Listing

9700-9749 ACUTELY HAZARDOUS WASTES (40 CFR. 261.33) **P-LISTED**			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
9701	Small Containers	Lb.	$2.19
9702	Containerized Liquids/Multi-Phase	Lb.	$3.80
9704	Containerized Solids	Lb.	$4.11

9750-9799 TOXIC WASTES (40 CFR 261.33) **U-LISTED**			
CLIN	SERVICES/SUPPLIES	UNIT	UNIT PRICE
9751	Small Containers	Lb.	$3.21
9752	Containerized Liquids/Multi-Phase	Lb.	$3.12
9754	Containerized Solids	Lb.	$4.11
9755	Aerosols	Lb.	$5.21

9900-9999 NON RCRA, NON STATE REGULATED WASTE			
CLIN	SERVICESISUPPLIES	UNIT	UNIT PRICE
9901	Small Containers	Lb.	$0.98
9901 LP	Small -Containers (Latex Paint) (See Clause C. 59)	Lb.	$0.70
9902	Containerized Liquids/Multi-Phase	Lb.	$0.70
9902AF	Containerized Liquids/Multi-Phase (Anti-freeze) (See Clause C.55)	Lb.	$0.77
9902CD	Containerized Liquids/Multi-Phase (CERCLA Wastes) (See Clause.C.67)	Lb.	$0.26
9902FA	Containerized Liquids/Multi-Phase (Fuel Filters, Wet) (See Clause C.60)	Lb.	$0.73
9902LP	Containerized Liquids/Multi-Phase (Latex Paint) (See Clause C.59)	Lb.	$0.45
9902RR	Containerized Liquids/Multi-Phase (See Clause C.53)	Lb.	$0.22
9904	Containerized Solids	Lb.	$0.68
9904FB	Containerized Solids (Fuel Filters, Dry) (See Clause C.60)	Lb.	$0.70
9904CD	Containerized Solids (CERCLA Wastes) (See Clause C.67)	Lb.	$0.28
9904LA	Containerized Solids (Lead Acid Batteries) (See clause C.56)	Lb.	$0.30
9905	Aerosols	Lb.	$3.89
9906	Bulk Liquids (pumpable) (See Clause C.35)	Lb.	$0.12
9906RR	Bulk Liquids (pumpable) (See Clause C.53)	Lb.	$0.35

Julian Date Calendar

(perpetual)

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Day
1	001	032	060	091	121	152	182	213	244	274	305	335	1
2	002	033	061	092	122	153	183	214	245	275	306	336	2
3	003	034	062	093	123	154	184	215	246	276	307	337	3
4	004	035	063	094	124	155	185	216	247	277	308	338	4
5	005	036	064	095	125	156	186	217	248	278	309	339	5
6	006	037	065	096	126	157	187	218	249	279	310	340	6
7	007	038	066	097	127	158	188	219	250	280	311	341	7
8	008	039	067	098	128	159	189	220	251	281	312	342	8
9	009	040	068	099	129	160	190	221	252	282	313	343	9
10	010	041	069	100	130	161	191	222	253	283	314	344	10
11	011	042	070	101	131	162	192	223	254	284	315	345	11
12	012	043	071	102	132	163	193	224	255	285	316	346	12
13	013	044	072	103	133	164	194	225	256	286	317	347	13
14	014	045	073	104	134	165	195	226	257	287	318	348	14
15	015	046	074	105	135	166	196	227	258	288	319	349	15
16	016	047	075	106	136	167	197	228	259	289	320	350	16
17	017	048	076	107	137	168	198	229	260	290	321	351	17
18	018	049	077	108	138	169	199	230	261	291	322	352	18
19	019	050	078	109	139	170	200	231	262	292	323	353	19
20	020	051	079	110	140	171	201	232	263	293	324	354	20
21	021	052	080	111	141	172	202	233	264	294	325	355	21
22	022	053	081	112	142	173	203	234	265	295	326	356	22
23	023	054	082	113	143	174	204	235	266	296	327	357	23
24	024	055	083	114	144	175	205	236	267	297	328	358	24
25	025	056	084	115	145	176	206	237	268	298	329	359	25
26	026	057	085	116	146	177	207	238	269	299	330	360	26
27	027	058	086	117	147	178	208	239	270	300	331	361	27
28	028	059	087	118	148	179	209	240	271	301	332	362	28
29	029		088	119	149	180	210	241	272	302	333	363	29
30	030		089	120	150	181	211	242	273	303	334	364	30
31	031		090		151	1	212	243		304		365	31

FOR LEAP YEAR USE PAGE 2

FOR LEAP YEARS ONLY

Table 4

Julian Date Calendar

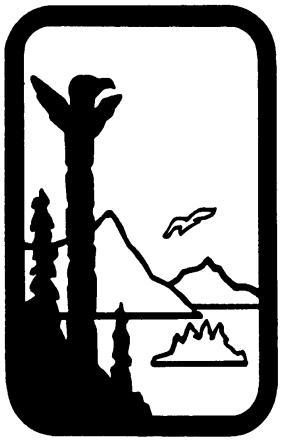
Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Day
1	001	032	061	092	122	153	183	214	245	275	306	336	1
2	002	033	062	093	123	154	184	215	246	276	307	337	2
3	003	034	063	094	124	155	185	216	247	277	308	338	3
4	004	035	064	095	125	156	186	217	248	278	309	339	4
5	005	036	065	096	126	157	187	218	249	279	310	340	5
6	006	037	066	097	127	158	188	219	250	280	311	341	6
7	007	038	067	098	128	159	189	220	251	281	312	342	7
8	008	039	068	099	129	160	190	221	252	282	313	343	8
9	009	040	069	100	130	161	191	222	253	283	314	344	9
10	010	041	070	101	131	162	192	223	254	284	315	345	10
11	011	042	071	102	132	163	193	224	255	285	316	346	11
12	012	043	072	103	133	164	194	225	256	286	317	347	12
13	013	044	073	104	134	165	195	226	257	287	318	348	13
14	014	045	074	105	135	166	196	227	258	288	319	349	14
15	015	046	075	106	136	167	197	228	259	289	320	350	15
16	016	047	076	107	137	168	198	229	260	290	321	351	16
17	017	048	077	108	138	169	199	230	261	291	322	352	17
18	018	049	078	109	139	170	200	231	262	292	323	353	18
19	019	050	079	110	140	171	201	232	263	293	324	354	19
20	020	051	080	111	141	172	202	233	264	294	325	355	20
21	021	052	081	112	142	173	203	234	265	295	326	356	21
22	022	053	082	113	143	174	204	235	266	296	327	357	22
23	023	054	083	114	144	175	205	236	267	297	328	358	23
24	024	055	084	115	145	176	206	237	268	298	329	359	24
25	025	056	085	116	146	177	207	238	269	299	330	360	25
26	026	057	086	117	147	178	208	239	270	300	331	361	26
27	027	058	087	118	148	179	209	240	271	301	332	362	27
28	028	059	088	119	149	180	210	241	272	302	333	363	28
29	029	060	089	120	150	181	211	242	273	303	334	364	29
30	030		090	121	151	182	212	243	274	304	335	365	30
31	031		091		152		213	244		305		366	31

(USE IN 1996, 2000, 2004, etc.)

OPEN BURNING
POLICY & GUIDELINES

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Air & Water Quality
Air Quality Improvement Section



Contact:

<u>in the Southeast</u>
Gus van Vliet
(907) 465-5344, 465-5129 (fax)
410 Willoughby, Ste. 105, Juneau AK 99801-1795

or

<u>All other regions in Alaska</u>
Ann Lawton
(907) 269-3066, 269-7508 (fax)
555 Cordova, Anchorage AK 99501

and/or
call 1-800-770-8818 regarding open burn complaints and approvals in Alaska.

version revised 9/22/98

POLICY AND GUIDELINES

The State of Alaska has two basic concerns with open burning: 1) that it does not spread and become a wildfire, and 2) that it does not create a health hazard or a public nuisance. The Department of Natural Resources (DNR) is responsible for regulations and permits to address the first concern (fire safety). The Department of Environmental Conservation (DEC) is responsible for regulations and permits to address the second concern (environmental protection).

It is the policy of the Department of Environmental Conservation to eliminate, minimize, or control open burning and to encourage other methods of disposal where possible. When open burning is permitted by the DEC, the permittee must provide for the most efficient combustion possible for the material to be burned. The DEC supports the maximum recycling and utilization of wood and forest products to reduce the volume of material requiring burning.

All open burning in the state, whether requiring written approval from DEC or not, must be done in a way that maintains maximum combustion efficiency throughout the burning period.

18 AAC 50.110. AIR POLLUTION PROHIBITED. A person may not cause or permit any emission that is injurious to human health or welfare, animal or plant life, or property, or that would unreasonably interfere with the enjoyment of life or property.

18 AAC 50.065. OPEN BURNING.

(a) Except when conducting open burning under (g), (h), or (i) of this section, a person conducting open burning shall comply with the limitations of (b) - (f) of this section and shall ensure that

(1) the material is dried or kept covered to the greatest extent possible prior to burning;

(2) before igniting the burn, noncombustibles are separated;

(3) natural or artificially induced draft is present;

(4) to the greatest extent practicable, combustibles are separated from grass or peat layer;

(5) combustibles are not allowed to smolder (burn and smoke without flame).

(b) **Black Smoke Prohibited**. Except for firefighter training conducted under (h) or (i) of this section, open burning of asphalt products, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written DEC approval. DEC approval of open burning as an oil spill response countermeasure is subject to the DEC's *In Situ Burning Guidelines for Alaska*, adopted by reference in 18 AAC 50.035. Open burning approved under this section is subject to the following limitations:

(1) opening burning of liquid hydrocarbons produced during oil or gas well flow tests may occur only when there are no practical means available to recycle, reuse, or dispose of the fluids in a more environmentally acceptable manner;

(2) the person who conducts open burning shall establish reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated; and

(3) the DEC will, in its discretion, as a condition of approval issued under this subsection, require public notice as described in (j) of this section.

(c) **Toxic and Acid Gases and Particulate Matter Prohibited.** Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, or polyurethane products in a way that gives off toxic or acidic gases or particulate matter is prohibited.

(d) **Adverse Effects Prohibited**. Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

(e) **Air Quality Advisory**. Open burning is prohibited in an area if the DEC declares an air quality advisory under 18 AAC 50.245 , stating that burning is not permitted in that area for that day. This advisory will be based on a determination that there is or is likely to be inadequate air ventilation to maintain the standards set by 18 AAC 50.010. The DEC will make reasonable efforts to ensure that the advisory is broadcast on local radio or television.

(f) **Wood Smoke Control Areas**. Open burning is prohibited between November 1 and March 31 in a wood smoke control area identified in 18 AAC 50.025(b).

(g) **Controlled Burning**. Controlled burning to manage forest land, vegetative cover, fisheries, or wildlife habitat, other than burning to combat a natural wildfire, requires written DEC approval if the area to be burned exceeds 40 acres yearly. The DEC will, in its discretion, require public notice as described in (j) of this section.

(h) **Firefighter Training: Structures**. A fire service may open burn structures for firefighter training without ensuring maximum combustion efficiency under the following circumstances:

(1) before igniting the structure, the fire service shall

(A) obtain DEC approval for the location of the proposed firefighter training; approval will be based on whether the proposed open burning is likely to adversely affect public health in the neighborhood of the structure;

(B) visually identify materials in the structure that might contain asbestos, test those materials for asbestos, and remove all materials that contain asbestos;

(C) ensure that the structure does not contain

(i) putrescible garbage;

(ii) electrical batteries;

(iii) stored chemicals such as fertilizers, pesticides, paints, glues, sealers, tars, solvents, household cleaners, or photographic reagents;

(iv) stored linoleum, plastics, rubber, tires, or insulated wire;

(v) hazardous waste;

(vi) lead piping;

(vii) plastic piping with an outside diameter of four inches or more; or

(viii) urethane or another plastic foam insulation;

(D) provide public notice consistent with (j) of this section; and

(E) ensure that a fire-service representative is on-site before igniting the structure;

(2) the fire service shall ignite and conduct training on only one main structure and any number of associated smaller structures at a time; examples of associated smaller structures are garages, sheds, and other outbuildings; and

(3) the fire service shall respond to complaints in accordance with (k) of this section.

(i) **Firefighter Training: Fuel Burning.** Unless a greater quantity is approved by the DEC, a fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 600 gallons yearly for firefighter training without ensuring maximum combustion efficiency. To conduct this training without prior written DEC approval, the fire service shall

(1) provide public notice consistent with (j) of this section before burning more than 20 gallons of uncontaminated fuel, unless waived in writing by the DEC; and

(2) respond to complaints in accordance with (k) of this section.

(j) **Public Notice**. A person required to provide public notice of open burning shall issue the notice through local news media or by other appropriate means if the area of the open burning does not have local news media. The public notice must be issued as directed by the DEC and must

(1) state the name of the person conducting the burn;

(2) provide a list of material to be burned;

(3) provide a telephone number to contact the person conducting the burn before and during the burn;

(4) for a surprise fire drill, state

(A) the address or location of the training; and

(B) the beginning and ending dates of the period during which a surprise fire drill may be conducted may not exceed 30 days; and

(5) for open burning other than a surprise fire drill, the notice must also state the expected time, date, and location of the open burning.

(k) **Complaints**. A person required to provide public notice of open burning shall:

(1) make a reasonable effort to respond to complaints received about the burn;

(2) keep a record for at least 30 days of all complaints received about the burn, including:

(A) the name, address, and telephone number of each person who complained;

(B) a short summary of each complaint; and

(C) any action the person conducting the open burning took to respond to each complaint; and

(3) upon request, provide the DEC with a copy of the records kept under (2) of this subsection. (Eff. 1/18/97, Register 141)

Authority: AS 46.03.020
AS 46.03.710
AS 46.14.010
AS 46.14.020
AS 46.14.030
Sec. 30, ch. 74, SLA 1993

DEFINITIONS

AS 46.14.990 Definition

(2) Aambient air≅ means that portion of the atmosphere, external to buildings, to which the general public has access;

18 AAC 50.990 Definitions

(14) "black smoke≅ means smoke having the color of emissions produced by the incomplete combustion of toluene in the double wall combustion chamber of a smoke generator;

(39) "fire service" means a fire department registered with the state fire Marshall under 13 AAC 52.030, an organized fire brigade established under 8 AAC 61.010, Subchapter 01.1302(a)(1), and a wildland fire suppression organization within the Alaska Department of Natural Resources, Division of Forestry, the United States Forest Service, or the United States Bureau of Land Management/Alaska Fire Service;

(46) "impairment of visibility" means a humanly perceptible change in visibility such as visual range, contrast, or coloration, from that which would exist under natural conditions;

(59) "open burning" means the burning of a material that results in the products of combustion being emitted directly into the ambient air without passing through a contaminant outlet;

(61) "organic vapors" means any organic compound or mixture of compounds evaporated from volatile liquid or any organic compound or mixture of compounds in aerosols formed from volatile liquid;

(70) "practical means available" means, when approving the open burning of liquid hydrocarbons produced during oil or gas well testing, that all alternative disposal methods will have been analyzed and, where an environmentally acceptable procedure exists, it will be required;

(71) "putrescible garbage" means material capable of being decomposed with sufficient rapidity to cause nuisance or obnoxious odors;

(74) "reduction in visibility" means the obscuring of an observer's vision;

(77) Aresponsible official≅ means:

(A) for a corporation, a president, secretary, treasurer, or vice-president of the corporation in charge of the principal business function, or any other person who performs similar policy or decision making functions for the corporation, or a duly authorized representative of that person if the representative is responsible for the overall operation of one or more manufacturing, production, or operation facilities applying for or subject to a permit under AS 46.14 or this chapter, and

(i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $35 million in second quarter 1980 dollars; or

(ii) the delegation of authority to the representative is approved in advance by DEC;

(B) for a partnership or sole proprietorship, a general partner or the proprietor, respectively; and

(C) for a public agency, a principal executive officer or ranking elected official; for the purposes of this chapter, a principal executive officer of a federal agency includes the chief executive officer with responsibility for the overall operations of a principal geographic unit in this state.

(81) "smolder" means to burn and smoke without flame;

(85) "unavoidable" means, for emergencies or malfunctions, a situation that

(A) arises from a sudden and reasonably unforeseeable event beyond the person's control, including acts of God, that requires immediate corrective action to restore normal operation; and

(B) does not include the extent of the situation caused by improper design, lack of preventative maintenance, careless or improper operation, or operator error;

(90) “wood smoke control area” is a geographic location where a wood-burning activity has resulted in two or more discontinuous 24-hour periods when the ambient exposures of PM-10 solely from this activity have reached or exceeded 150 micrograms per cubic meter of air. The Mendenhall Valley area of Juneau is a wood smoke control area. (Eff. 1/18/97, Register 141)

(91) "uncontaminated fuel" means a hydrocarbon fuel, excluding propane, that does not contain used oil, crude oil, or a hazardous waste;

18 AAC 50.245. AIR EPISODES AND ADVISORIES.

(a) The DEC will, in its discretion, declare an air episode and prescribe and publicize curtailment action when the concentration of an air contaminant in the ambient air has reached, or is likely in the immediate future to reach, any of the concentrations established in Table 5 in this subsection.

(b) The DEC will declare an air quality advisory when, in its judgment, air quality or atmospheric dispersion conditions exist that might threaten public health.

(c) If the DEC declares an air quality advisory under (b) of this section, the DEC will

(1) request voluntary emission curtailments from any person issued a permit under this chapter whose facility's emissions might impact the area subject to the advisory; and

(2) publicize actions to be taken to protect public health. (Eff. 1/18/96, Register 141)

Table 5
Concentrations Triggering an Air Episode

Episode Type	Air Contaminant	Concentration (micrograms per cubic meter)
Air alert	Sulfur dioxide	365 (24-hour average)
	PM-10	150 (24-hour average)
	PM-10 from wood burning (wood smoke control areas)	92 (24-hour average)
	Carbon monoxide	10,000 (8-hour average)
Air warning	Sulfur dioxide	800 (24-hour average)
	PM-10	350 (24-hour average)
	Carbon monoxide	17,000 (8-hour average)
Air emergency	Sulfur dioxide	1,600 (24-hour average)
	PM-10	420 (24-hour average)
	PM-10 from wood burning (wood smoke control areas)	During an air alert, a concentration measured or predicted to exceed 92 (24-hour average), and to continue to increase beyond the concentration that triggered the air alert
	Carbon monoxide	34,000 (8-hour average)

Authority: AS 46.03.020
AS 46.14.010
AS 46.14.020
AS 46.14.030
Sec. 30, ch. 74, SLA 1993

AREA-WIDE POLLUTANT CONTROL EFFORTS FOR OPEN BURNING

Control of open burning incidences for smoke pollution is the responsibility of the DEC. Open burning is defined as, "the burning of a material that results in the products of combustion being emitted directly into the ambient air without passing through a contaminant outlet." All open burning in the state, whether requiring written approval from the DEC or not, must be done in a way that maintains maximum combustion efficiency throughout the burning period.

Open burning at landfills is also controlled by solid waste disposal regulations, 18 AAC 60.355. Open burning is prohibited at Class I and II landfills.

MATERIALS THAT CANNOT BE INCINERATED OR OPEN BURNED

- ≠ Spill absorbents and contaminated soils that are RCRA hazardous waste.
- ≠ Pesticides, halogenated organic compounds, cyanic compounds or polyurethane products burned in a way that gives off toxic or acidic gases or particulates.
- ≠ Putrescible garbage, animal carcasses, or petroleum-based materials burned in a way that causes odor or black smoke that may have an adverse effect on nearby persons or residences.
- ≠ Electrical batteries, all types and sizes.
- ≠ All liquid-form paints (e.g. in cans). Wood with lead-based paint may require a permit (call ADEC).
- ≠ All solvents, except those composed of water and soap/detergent solutions.
- ≠ All aerosol cans, except that those do not use chloro- or fluoro- carbon propellants.
- ≠ Asbestos or any metals or alloys containing beryllium, chromium, cobalt, arsenic, selenium, cadmium, mercury, lead, or any radioactive wastes.
- ≠ Any electrical or electronic lamps or components that contains any of the above metals/alloys (including fluorescent, high-pressure sodium, mercury vapor and metal halide lamps.)
- ≠ Any plastics or other materials containing chlorine as an essential component (such as Polyvinyl Chloride - PVC pipe). However, salt (any metal chloride, used for thawing or ion exchange) residue in empty containers contains chlorine as an essential component.
- ≠ Tires.
- ≠ Treated wood containing compounds such as creosote, napthlate, or tar.

WHO NEEDS WRITTEN APPROVAL?

Certain types of open burning require written approval from the DEC prior to the incident. These are the burning of:

⇒ petroleum-based materials or other materials in a way that gives off black smoke, including most fire fighter training; or

⇒ material from land clearing operations for agricultural or development and forest or habitat management if the area burned, or the material collected to be burned, is from 40 acres or greater per year.

If human safety may be endangered or to protect the environment for example during an oil spill about to enter a watershed, verbal approval is adequate with a follow-up letter.

LAND CLEARING

Open burning of slash material by farmers and developers is subject to obtaining written approval if the intent is to clear and burn 40 acres or more per year. A complete burn plan is required for the burns planned for each year.

Open burning should be done as rapidly and safely as other considerations permit, to develop maximum heat energy per unit time and vent the smoke to the highest elevation possible.

Burning of dried material is required because:

≠ higher heat energy with a related tall convection column can be developed;

≠ cured material produces less smoke per unit volume than green material; and

≠ the medium size and larger fuels can be more effectively burned when cured and thus more satisfactorily remove the fire hazard.

The applicant may be required to obtain meteorological information for the burn day, specifically wind speed, wind direction and ceiling level, both for the start of the burn and forecasted for the duration of the burn. If the wind direction would allow smoke to impact on sensitive areas, burning may be denied for that period.

If the DEC determines that the airshed is being overloaded with smoke, a termination of the existing and proposed burning may be required. Limitations may have to be placed on the burn for easy shutdown.

Notification at least one day in advance of burning attempts should be provided to the DEC. If burning is not conducted for that day, renotification is required on the day burning commences.

A summary report listing types of fuels and quantities burned, days burning occurred, and the meteorological conditions during the burn may be required by DEC as part of the approval conditions. The open burn approval must be sent out by DEC within thirty days after receipt of a completed application. The approval must have a date of expiration.

SMOKE

There is a need for the development of an Alaska Smoke Management Plan to control open burning. Due to the interagency concerns over such a document, the Air Quality Committee of the Alaska Wildland Fire Coordinating Group will be developing the document for inclusion into this section. This committee is primarily comprised of State and Federal land managers who use fire as a land management tool.

OPEN BURNING PROHIBITION

Open burning can be prohibited on an area-by-area basis if an air quality advisory is broadcast on a radio or television covering the area of concern. This advisory can be for a maximum of twenty-four hours but may be renewed daily. The advisory will be based on an assessment that inadequate air ventilation is available which would inhibit the dispersal of pollutants, such as inversions and low wind speeds.

FIRE TRAINING

Fire fighter training without DEC approval must conform to 18 AAC 50.065(h) or (i). Training under 18 AAC 50.065(h) or (i) must comply with the public notification of 18 AAC 50.065(j). Fire fighter training may also be conducted under a DEC open burn approval pursuant to 18 AAC 50.065(b). In general, this would also require public notification according to 18 AAC 50.065(j). This notice can be waived in writing by the DEC for burns conducted in remote areas, where the news media is not generally available or where no public will be affected. Alternatives can be allowed such as a monthly or yearly announcement of burns if the requirements of 18 AAC 50.065(j) cannot be met.

INDUSTRIAL

Open burning of oil or gas well flow tests must conform to 18 AAC 50.065(b)(1) and the guidance contained in the *In situ Burning Guidelines for Alaska*. It is the intent of the DEC to eliminate open burning of liquid hydrocarbons because alternative measures are generally available. If alternatives become unusable because of equipment breakdown or inclement weather, such events do not constitute the non-availability of alternatives.

RESOURCE MANAGEMENT

Prescribed burning, intentionally set fires to burn off ground and forest cover is usually, but not always, done by land management agencies. Prescribed burning is subject to obtaining written approval if the intent is to clear 40 acres or more in a year. Each applicant will have an operational plan of action documenting the weather conditions under which the use of prescribed fire will be authorized, and contingency actions to follow if prescriptive conditions are exceeded. Plans for burning that may impact sensitive areas, such as population centers or airports, will require more specific detail than plans for remote areas.

Since prescribed burning is the burning off of ground cover, the normal requirements of, "maximum combustion efficiency" do not completely apply. Applicants should discuss in detail how they plan to conduct the burn. Lack of achieving "maximum combustion efficiency" will not, in itself, constitute a reason to deny an application.

APPROVAL APPLICATION REQUIREMENTS

Persons with approved open burning plans should work directly with the National Weather Service Fire Weather Forecasters or local fire officials to obtain spot weather forecasts for expected fire escapement and smoke conditions at each specific burn site. The forecaster should be requested to give the reliability of the forecast.

Persons with approval must curtail their fire if their portion of the airshed is becoming overloaded or local weather factors would create smoke problems, even though no other restrictions have been imposed, i.e. wind moving directly into sensitive areas, inversions, etc.

The final responsibility for smoke control problems rests with applicant. It is also the responsibility of the applicant to show all possible alternatives to open burning have been analyzed and why open burning is the only feasible alternative.

Written approval is not automatic but must be evaluated for conformance with these guidelines.

BURN PLAN APPROVAL GUIDELINES

APPROVAL ISSUANCE

Section III-F of the Alaska Air Quality Control Plan lists the requirements for obtaining written approval to open burn. The DEC has up to 30 days to issue an approval. These guidelines are designed to assist you in preparing a contingency plan in case of unforeseen changes in weather or other uncontrollable parameters that would affect your burn and the resultant smoke.

The applicant is required to submit a burn plan addressing the following eleven control concerns which may be modified to fit the specific open burning situation:

1. Indicate the location, duration, and inclusive dates considered for the burn(s).

The response to this question should indicate the type and quantity of material, the condition and the expected duration of both single events and the entire burning project. Changes or additional information for the burn plan can be discussed at the time of DEC notification by phone.

For *land clearing*, written approvals may be issued for extended periods as long as written or verbal monthly progress reports are submitted to the DEC. The reports must indicate public awareness, amount and type of material burned and meteorological conditions during burning.

In the case of *fire training*, the fuel should not be contaminated with hazardous substances and the expected duration of a single training exercise should be indicated. Written approvals may be issued for extended periods as long as reports are required for each event. The report must indicate public awareness, meteorological conditions and number of personnel trained.

For *prescribed burning*, the total acreage expected to be consumed and the burning window should be given. A summary report after completion must indicate public awareness, amount of material consumed and meteorological conditions during burning.

2. <u>Identify the location of all sensitive features that might be impacted by smoke.</u>

The applicant should list all population centers, airports, hospitals, schools (in session), and numbered Alaska highways within an appropriate radius of the project. The "appropriate radius" should include an adequate margin of safety to include *all potentially impacted* sensitive populations and activities.

3. <u>Where the weather forecasts will be obtained and how it will be used to prevent smoke impacts.</u>

List the parameter(s) that will be obtained (predicted baseline visibility, average wind direction and speed, etc.) and give the source and/or method of obtaining a short-term forecast including the telephone number if applicable.

4. <u>Indicate how weather changes will be monitored and what will be done to reduce or mitigate smoke impacts if unfavorable weather should occur after ignition.</u>

Indicate what you do if a wind shift or other weather change begins to create an adverse smoke impact on any sensitive feature identified in item 2. For example, if a wind shift began to impact traffic along a nearby road, you might help direct traffic. Or, if you expect an inversion to occur during the night, you would say that the fire will be put out at the end of the day.

If any safety hazard is present, you must extinguish the fire as soon as possible. You ***<u>will</u>*** be held legally responsible for any accidents or adverse health effects that occur because of your open burn.

All fires must be extinguished immediately if requested by the authority in charge of the impacted feature (hospital administrators, FAA authorities, State Troopers, local fire department, etc.).

5. <u>What the are the considerations for visibility impacts?</u>

Authorities having control over sensitive features identified in item 2 will be notified if visibility is expected to be decreased to less than three miles for a period of time in excess of 30 consecutive minutes and/or 180 minutes during a 24-hour period. All fires must be extinguished as soon as possible if requested by the authority in charge of the impacted feature.

6. How coordination with air quality authorities having jurisdiction will be accomplished.

The DEC must be notified by telephone prior to ignition (800-770-8818). When you call to notify DEC, you will be asked for a contact phone number. You will also be asked what your test burn was like, how long you expect the active fire phase and the smoldering phase to last, and what kind of notification procedures you have done.

The call to DEC is important in case we get any calls from people concerned about the burn.

7. The procedures that will be used to coordinate with other concerned agencies.

All authorities in control of sensitive features identified in item 2 (such as the FAA, State Troopers, military, adjacent land managers, etc.) who are potentially affected by visibility or adverse smoke impacts must be notified prior to ignition. This requirement will be waived if the authority in control so stipulates. The appropriate District office of the Forestry Division of the Department of Natural Resources will also be notified if required.

8. How will the public be informed prior to, during and after the burning?

A successful burn is one in which NO COMPLAINTS ARE RECEIVED. The best way to do this is to make sure everyone around you knows when the burn will occur so that they can take steps to either avoid the smoke or tolerate it. Your direct contact phone number should be publicized at this time.

Authorities in control of sensitive features identified in item 2 have the right to require that the applicant notify individuals potentially affected. In the case of *fire training*, the public will be informed through news media.

9. What will be done to enhance the active fire phase and reduce the smoldering phase?

The construction guidelines of item 1 will be followed. Material should be stacked and tended in order to enhance oxygen flow to the flames.

For *land clearing*, berm piles should: 1) contain less than five percent by weight non-combustibles (soil, ice or snow); 2) be readily extinguishable by the applicant within two hours; 3) loosely stacked to allow for natural draft; 4) be cured for at least one year prior to ignition; and 5) be no longer than 1000 feet without a firebreak.

10. What will be done to validate predicted smoke dispersal conditions?

If a recommended method (smoke bomb, test fire, etc.) fails to indicate that acceptable smoke dispersion will occur, no fires will be ignited. "Acceptable smoke dispersion" is defined as an unacceptable decrease in air quality for any sensitive feature identified in item 2. Weather inversions will cause a smoke plume to stay near the ground. Good mixing conditions will cause the plume to go straight up and disappear within 100 feet of the ground. A discussion of your smoke dispersion testing method would be appropriate for this guideline.

Health impacts to sensitive populations are of particular concern (elderly, children or people with cardiopulmonary illness), so this guideline is very important.

11. <u>Alternative disposal options for material being open burned.</u>

For fires other than fire fighter training, an evaluation of alternatives to open burning must demonstrate that open burning is the only feasible alternative. Did you look into marketing the timber with a lumber company? Did you investigate any other uses for the material?

HOW TO OBTAIN OPEN BURNING WRITTEN APPROVAL

The applicant must submit a plan for the proposed open burning, addressing the eleven (11) concerns specified in these guidelines. The plan must contain the following completed certification statement (this page may be photocopied, signed, and added to the report):

I hereby certify that the information in this application is correct and true to the best of my knowledge.

_____	_____
Signature of Applicant	Signature of Landowner
_____	_____
Printed Name of Applicant	Printed Name of Landowner

Applicants should also check with local government agencies and the Alaska Department of Natural Resources to determine if additional permits or approvals are required for the particular open burn.

Open burning in compliance with these guidelines or with written approval conditions does not exempt any person from any civil or criminal liability for consequences or damages resulting from such burning, nor does it exempt any person from complying with any other applicable law, ordinance, regulation, rule, permit, order, or decrees of this or any other governmental entity having jurisdiction.

A successful burn is one in which no complaints are received by the Department.

BY ORDER OF THE COMMANDER, 611th AIR SUPPORT GROUP
GROUP INSTRUCTION 32-1
11 August 1999
Environmental
WASTE HANDLING FOR REMOTE SITES
OPR: 611 CES/CEVC (MSgt Timothy Jackson)
Certified by: 611 ASG/CC (Colonel Michael M. Wyka)
Pages: 7
Distribution: 611 ASG/CC
611 CES/CC
611 ASUS/CC

This Instruction provides guidance for Air Force personnel and personnel performing work under contract to the AF at the 611th Air Support Group's remote Alaskan sites, and Forward Operating Locations (FOL). This is to include Base Operations Support (BOS) personnel as well as all contracted personnel performing construction, demolition, restoration, and other related projects.

1. **Applicable Standards**. Use the procedures in this instruction in addition to compliance with all applicable Federal, State, and Air Force standards for hazardous waste management and transportation. References used include, but are not limited to:

1.2. Resource Conservation and Recovery Act (RCRA):
40 Code of Federal Regulations (CFR) Parts: 260, 261, 262, 263, 266, 268, 273, and 279.

1.3. Toxic Substances Control Act (TSCA):
40 CFR Part 761.

1.4. Hazardous Materials Transportation Act (HMTA):
49 CFR Parts 171-180.

1.5. International Civil Aviation Organization (ICAO):
Technical Instructions for the Safe Transport of Dangerous Goods by Air.

1.6. International Air Transport Association (IATA):
Dangerous Goods Regulations.

1.7. International Maritime Organization (IMO):
International Dangerous Goods Code (IMDG).

1.8. Occupational Safety and Health Act (OSHA):
29 CFR 1910.

1.9. Canadian Environmental Protection Act:
Export and Import of Hazardous Waste Regulations (EIHWR).

1.10. 3rd Wing OPlan 19-3:
Hazardous Waste, Used Oil, and Hazardous Material Management Plan.

2. **Definitions/Acronyms**:

2.1. Accumulation Start Date: Date when the container reaches capacity at the accumulation point for RCRA hazardous waste. Date decision is made to ship waste off site for treatment or disposal for CERCLA derived waste (it then becomes a RCRA hazardous waste).

2.2. Air Force Program Manager: 611 ASUS personnel assigned as the Air Force liaison to the BOS contractor.

2.3. AF Project Manager: Any 611 ASG person(s) responsible for initiating and overseeing a contract for any third-party contractor.

2.4. BOS Contractor: Base Operations Support contractor under Air Force contract to maintain and operate Air Force installation, or site.

2.5. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act.

2.6. DRMO: Defense Reutilization and Marketing Office, designated Air Force disposal facility.

2.7. FOL: Forward Operating Location.

2.8. Generator: Any person or organization on site whose act or process produces hazardous waste as defined by 40 CFR 261.10, to include all Air Force personnel, all persons under contract with the Air Force, and all parties working in agreement with the Air Force. Any waste generated on site by any of the above listed personnel will be considered Air Force generated waste.

2.9. HW: Hazardous Waste as defined by 40 CFR 261.3.

2.10. HWPM: 611 CES/CEVC Hazardous Waste Program Manager.

2.11. Non-Hazardous Waste: Any solid waste generated that does not meet the definition of 40 CFR 261.3.

2.12. Third-Party Contractor: Any person(s) contracted by the Air Force to provide a product or service to the Air Force, not to include BOS contractors. This includes all contracts let on behalf of the Air Force by non-Air Force agencies and Memoranda of Agreement with any party for work on Air Force property.

2.13. Third-Party Personnel: All personnel not assigned to the site. 611 ASG personnel will operate in the same manner as Third Party Personnel where this term is used.

2.14. Waste Stream: Is a solid waste as defined in 40 CFR 261.2 generated from a process.

3. **Responsibilities**:

3.1. All parties involved in the generation, handling, processing storage, disposition, and management of hazardous wastes (HW) will abide by all federal, state, local, and Air Force regulations in carrying out their duties. Discrepancies will be immediately identified to the Air Force Program Manager, Project Manager, and 611 CES/CEVC Hazardous Waste Program Manager. In the event of the discovery of an orphaned drum, the 611 CES/CEVC Hazardous Waste Program Manager will first try to determine the responsible party for the drum. If none can be determined, then the 611 CES/CEVC Hazardous Waste Program Manager will coordinate the disposition of the drum on a case-by-case basis.

3.2. The Air Force Program Manager (611 ASUS) will:

3.2.1. Act as the point of contact for the BOS contractor and coordinate any HW issues with the HWPM.

3.2.2. Coordinate between all other parties mentioned in this OI to facilitate the proper generation, management, handling, and disposition of HW.

3.2.3. Identify specific support required from 611 CES.

3.2.4. Coordinate site support requests as required.

3.3. AF Project Manager will:

3.3.1. Ensure that adherence to this instruction is incorporated into the statement of work for contracts of all third-party contractors.

3.3.2. Identify specific support required from the BOS contractor, and determine through coordination with the Air Force Program Manager for the site, whether this support is available and if support requires reimbursement.

3.3.3. Ensure the third-party contractor provides a listing to the BOS contractor prior to arrival on site, identifying all hazardous materials expected to be used during the project.

3.3.4. Ensure the third-party contractor provides a listing to the BOS contractor prior to arrival on site, identifying anticipated types and quantities of hazardous and non-hazardous wastes that could be generated from the project.

3.3.5. Ensure the proper accumulation start date for all HW is annotated, and forwarded to the BOS contractor and provided to the HWPM.

3.3.6. Ensure the third party contractor properly identifies, samples, characterizes, profiles, labels, and prepares manifests for all wastes IAW attached handbook.

3.3.7. Ensures that the HWPM, or designee reviews all waste documentation.

3.3.8. Ensure the third-party contractor uses a state certified lab for all required sampling.

3.3.9. Ensure the third-party contractor prepares all documentation as required by this instruction and forwards this documentation to the HWPM or designee at least 5 days prior to scheduled shipment or turn over to BOS contractor.

3.3.10. Provide AF project number to the third-party contractor.

3.3.11. Ensure all CERCLA derived waste is remediated or removed from site within a reasonable amount of time.

3.3.12. Provide funds as required.

3.4. The 611 CES/CEVC Hazardous Waste Program Manager will:

3.4.1. Monitor off-site shipment of hazardous waste to ensure that the 90-, 180-, or 270-day timeline is not exceeded.

3.4.2. Coordinate with the Project Manager and all parties to ensure all documentation is reviewed 5 days prior to scheduled turn in of waste to BOS contractor, DRMO, or other designated disposal facility.

3.4.3. Provide shipping document numbers to the third-party contractor for the waste drums during the document preparation period.

3.4.4. Track and maintain all drum numbers forwarded to his/her office.

3.4.5. Manage HW tracking database to ensure information is properly maintained.

3.5. The 611 CES/CECO and 611 CES/CEVO will:

3.5.1. Provide a listing to the Air Force Program Manager, BOS contractor, or designated representative prior to arrival on site, identifying all hazardous materials expected to be used during the project.

3.5.2. Provide a listing to the Air Force Program Manager, BOS contractor, or designated representative prior to arrival on site, identifying all anticipated types and quantities of hazardous and non-hazardous wastes that could be generated from the project.

3.5.3. Properly identify, sample, characterize, profile, label, and manifest all wastes. (see General Procedures of attached handbook).

3.5.4. Ensure all sampling is completed by a state certified lab.

3.5.5. Properly prepare a non-hazardous waste manifest for all non-hazardous wastes generated (see sections I & II of attached handbook).

3.5.6. Properly prepare a Uniform Hazardous Waste Manifest, EPA Form 8700-22, for all hazardous wastes generated. Ensure manifest is signed by qualified Air Force representative (see sections I & II of attached handbook).

3.5.7. Properly prepare DRMS Form 1930, Hazardous Waste Profile sheet, for all waste generated (see sections I & II of attached handbook).

3.5.8. Properly prepare DRMS Form 1851, Restricted Waste Notification, for all wastes subject to the Land Disposal Restrictions of 40 CFR (see sections I & II of attached handbook).

3.5.9. Properly label and store all drums (see sections I & II of attached handbook).

3.5.10. Ensure the proper accumulation start date for HW is annotated and forwarded to the BOS contractor and provided to the HWPM.

3.5.11. Submit all completed documentation listed above for review to the HWPM or designee no less than 5 days prior to the date selected to turn the waste over to the BOS contractor, or to be shipped off site.

3.5.12. When applicable, label drums IAW section I, attachment 4, section J of attached handbook, and forward all Drum numbers to the HWPM.

3.5.13. Ensure that personnel on site are properly trained to perform their duties with reference to handling, storing, packaging, labeling, and transporting waste IAW 29/40/49 CFR.

3.6. The BOS Contractor will:

3.6.1. Fill out block 3 of the Uniform Hazardous Waste Manifest, EPA Form 8700-22 IAW section I, of attached handbook.

3.6.2. Sign block 16 of Uniform Hazardous Waste Manifest, EPA Form 8700-22, for all waste generated on site not to include those generated by third-party personnel under contract by the Air Force.

3.6.3. Perform all duties of the “Environmental Coordinator,” “Site TMO,” and “Site AMSS” listed on the Hazardous Waste Shipment Checklist in Chapter 11 of 3rd Wing OPlan 19-3.

3.6.4. Properly label all containers IAW section I, attachment 4, section J, of attached handbook.

3.6.5. Forward a copy of all shipping documentation to DRMO and the 611 HWPM at least 5 days prior to scheduled off-site shipment of waste.

3.6.6. Store and handle all waste properly turned over by third-party personnel.

3.6.7. Track accumulation start dates and monitor timelines for waste shipment off site to ensure that the 90-, 180-, or 270-day timeline is not exceeded.

3.6.8. Track the generation of all hazardous wastes generated on site for inclusion in the Biennial Report.

3.6.9. Use Air Force provided waste tracking system.

3.7. The Third-Party Contractor will:

3.7.1. Provide a listing to the AF Project Manager prior to arrival on site, identifying all hazardous materials expected to be used during the project. The list shall include quantities, and usage. Material Safety Data Sheets (MSDS) will be filed on-site for reference and inspection.

3.7.2. Provide a listing to the AF Project Manager prior to arrival on site, identifying anticipated types and quantities of hazardous and non-hazardous wastes that could be generated from the project.

3.7.3. Identify all wastes generated and immediately determine if these wastes are considered hazardous.

3.7.4. Determine waste characteristics through product MSDSs, existing waste profiles, user knowledge, or representative sampling.

3.7.5. Ensure all sampling is completed by a state certified lab.

3.7.6. Ensure all containers are properly marked and labeled IAW section I, attachment 4, section J of attached handbook.

3.7.7. Properly prepare a non-hazardous waste manifest for all non-hazardous wastes generated (see sections I & II of attached handbook).

3.7.8. Properly prepare a Uniform Hazardous Waste Manifest, EPA Form 8700-22, for all hazardous wastes generated. Ensure manifest is signed by qualified Air Force representative (see sections I & II of attached handbook).

3.7.9. Properly prepare DRMS Form 1930, Hazardous Waste Profile sheet, for all waste generated (see sections I & II of attached handbook).

3.7.10. Properly prepare DRMS Form 1851, Restricted Waste Notification, for all wastes subject to the Land Disposal Restrictions of 40 CFR (see sections I & II of attached handbook).

3.7.11. Manage on-site accumulation points except on sites managed by Air Force BOS contractors. On sites managed by the BOS contractor, the third-party contractor shall coordinate accumulation activities with the BOS contractor through the Air Force project manager.

3.7.12. Provide a list to the HWPM and Project Manager each week, describing all waste accumulated on site. (see paragraph 5 of general procedures in attached handbook)

3.7.13. Accurately prepare all shipping paperwork in accordance with these operating instructions. The contractor shall ensure that the Air Force receives legible copies of all shipping papers and that all forms are **typed** and free of errors 5 days prior to scheduled shipment. Handwritten papers will not be accepted.

// SIGNED //
MICHAEL M. WYKA, Colonel, USAF
Commander

Attachment:
Waste Handling Handbook

THIS FORM REPLACES PREVIOUS FORM 3510-6 (8-98)
See Reverse for Instructions

Form Approved. OMB No. 2040-0188

NPDES FORM

United States Environmental Protection Agency
Washington, DC 20460

Notice of Intent (NOI) for Storm Water Discharges Associated with CONSTRUCTION ACTIVITY Under a NPDES General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a NPDES permit issued for storm water discharges associated with construction activity in the State/Indian Country Land identified in Section II of this form. Submission of this Notice of Intent also constitutes notice that the party identified in Section I of this form meets the eligibility requirements in Part I.B. of the general permit (including those related to protection of endangered species determined through the procedures in Addendum A of the general permit), understands that continued authorization to discharge is contingent on maintaining permit eligibility, and that implementation of the Storm Water Pollution Prevention Plan required under Part IV of the general permit will begin at the time the permittee commences work on the construction project identified in Section II below. IN ORDER TO OBTAIN AUTHORIZATION, ALL INFORMATION REQUESTED MUST BE INCLUDED ON THIS FORM. SEE INSTRUCTIONS ON BACK OF FORM.

I. Owner/Operator (Applicant) Information

Name: Phone:

Address: Status of Owner/Operator:

City: State: Zip Code:

II. Project/Site Information

Is the facility located on Indian Country Lands? Yes ☐ No ☐

Project Name:

Project Address/Location:

City: State: Zip Code:

Latitude: Longitude: County:

Has the Storm Water Pollution Prevention Plan (SWPPP) been prepared? Yes ☐ No ☐

Optional: Address of location of SWPPP for viewing ☐ Address in Section I above ☐ Address in Section II above ☐ Other address (if known) below:

SWPPP Address: Phone:

City: State: Zip Code:

Name of Receiving Water:

Month Day Year — Estimated Construction Start Date

Month Day Year — Estimated Completion Date

Estimate of area to be disturbed (to nearest acre):

Estimate of Likelihood of Discharge (choose only one):

1. ☐ Unlikely
2. ☐ Once per month
3. ☐ Once per week
4. ☐ Once per day
5. ☐ Continual

Based on instruction provided in Addendum A of the permit, are there any listed endangered or threatened species, or designated critical habitat in the project area?

Yes ☐ No ☐

I have satisfied permit eligibility with regard to protection of endangered species through the indicated section of Part I.B.3.e.(2) of the permit (check one or more boxes):

(a) ☐ (b) ☐ (c) ☐ (d) ☐

III. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: Date:

Signature: _____

EPA Form 3510-9 replaced 3510-6 (8-98)

Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity to be Covered Under a NPDES Permit

Form Approved. OMB No. 2040-0188

Who Must File a Notice of Intent Form

Under the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et.seq.; the Act), except as provided by Part I.B.3 the permit, Federal law prohibits discharges of pollutants in storm water from construction activities without a National Pollutant Discharge Elimination System Permit. Operator(s) of construction sites where 5 or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least 5 acres, or any site designated by the Director, must submit an NOI to obtain coverage under an NPDES Storm Water Construction General Permit. If you have questions about whether you need a permit under the NPDES Storm Water program, or if you need information as to whether a particular program is administered by EPA or a State agency, write to or telephone the Notice of Intent Processing Center at (703) 931-3230.

Where to File NOI Form

NOIs must be sent to the following address:

Storm Water Notice of Intent (4203)
USEPA
401 M. Street, SW
Washington, D.C. 20460

Do not send Storm Water Pollution Prevention Plans (SWPPPs) to the above address. For overnight/express delivery of NOIs, please include the room number 2104 Northeast Mall and phone number (202) 260-9541 in the address.

When to File

This form must be filed at least 48 hours before construction begins.

Completing the Form

OBTAIN AND READ A COPY OF THE APPROPRIATE EPA STORM WATER CONSTRUCTION GENERAL PERMIT FOR YOUR AREA. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, call the Notice of Intent Processing Center at (703) 931-3230.

Section I. Facility Owner/Operator (Applicant) Information

Provide the legal name, mailing address, and telephone number of the person, firm, public organization, or any other entity that meet either of the following two criteria: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have the day-to-day operational control of those activities at the project necessary to ensure compliance with SWPPP requirements or other permit conditions. Each person that meets either of these criteria must file this form. Do not use a colloquial name. Correspondence for the permit will be sent to this address.

Enter the appropriate letter to indicate the legal status of the owner/operator of the project: F = Federal; S = State; M = Public (other than federal or state); P = Private.

Section II. Project/Site Information

Enter the official or legal name and complete street address, including city, county, state, zip code, and phone number of the project or site. If it lacks a street address, indicate with a general statement the location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

The applicant must also provide the latitude and longitude of the facility in degrees, minutes, and seconds to the nearest 15 seconds. The latitude and longitude of your facility can be located on USGS quadrangle maps. Quadrangle maps can be obtained by calling 1-800 USA MAPS. Longitude and latitude may also be obtained at the Census Bureau Internet site: http://www.census.gov/cgi-bin/gazetteer.

Latitude and longitude for a facility in decimal form must be converted to degrees, minutes and seconds for proper entry on the NOI form. To convert decimal latitude or longitude to degrees, minutes, and seconds, follow the steps in the following example.

Convert decimal latitude 45.1234567 to degrees, minutes, and seconds.

1) The numbers to the left of the decimal point are degrees.
2) To obtain minutes, multiply the first four numbers to the right of the decimal point by 0.006. 1234 x .006 = 7.404.
3) The numbers to the left of the decimal point in the result obtained in step 2 are the minutes: 7'.
4) To obtain seconds, multiply the remaining three numbers to the right of the decimal from the result in step 2 by 0.06: 404 x 0.06 = 24.24. Since the numbers to the right of the decimal point are not used, the result is 24".
5) The conversion for 45.1234 = 45° 7' 24".

Indicate whether the project is on Indian Country Lands.

Indicate if the Storm Water Pollution Prevention Plan (SWPPP) has been developed. Refer to Part IV of the general permit for information on SWPPPs. To be eligible for coverage, a SWPPP must have been prepared.

Optional: Provide the address and phone number where the SWPPP can be viewed if different from addresses previously given. Check appropriate box.

Enter the name of the closest water body which receives the project's construction storm water discharge.

Enter the estimated construction start and completion dates using four digits for the year (i.e. 05/27/1998).

Enter the estimated area to be disturbed including but not limited to: grubbing, excavation, grading, and utilities and infrastructure installation. Indicate to the nearest acre; if less than 1 acre, enter "1." Note: 1 acre = 43,560 sq. ft.

Indicate your best estimate of the likelihood of storm water discharges from the project. EPA recognizes that actual discharges may differ from this estimate due to unforeseen or chance circumstances.

Indicate if there are any listed endangered or threatened species, or designated critical habitat in the project area.

Indicate which Part of the permit that the applicant is eligible with regard to protection of endangered or threatened species, or designated critical habitat.

Section III. Certification

Federal Statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner of the proprietor, or

For a municipality, state, federal, or other public facility: by either a principal executive or ranking elected official. An unsigned or undated NOI form will not be granted permit coverage.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 3.7 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Director, OPPE Regulatory Information Division (2137), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

THIS FORM REPLACES PREVIOUS FORM 3510-7 (8-92)

Please See Instructions Before Completing This Form

Form Approved. OMB No. 2040-0086
Approval expires: 8-31-98

NPDES FORM

United States Environmental Protection Agency
Washington, DC 20460

Notice of Termination (NOT) of Coverage Under a NPDES General Permit for Storm Water Discharges Associated with Industrial Activity

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with industrial activity under the NPDES program. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. Permit Information

NPDES Storm Water General Permit Number: ☐☐☐☐☐☐☐☐☐☐

Check Here if You are No Longer the Operator of the Facility: ☐

Check Here if the Storm Water Discharge is Being Terminated: ☐

II. Facility Operator Information

Name: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Phone: ☐☐☐-☐☐☐-☐☐☐☐

Address: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

City: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ State: ☐☐ ZIP Code: ☐☐☐☐☐-☐☐☐☐

III. Facility/Site Location Information

Name: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Address: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

City: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ State: ☐☐ ZIP Code: ☐☐☐☐☐-☐☐☐☐

Latitude: ☐☐☐☐☐ Longitude: ☐☐☐☐☐☐ Quarter: ☐☐ Section: ☐☐ Township: ☐☐☐ Range: ☐☐☐

IV. Certification

I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by a NPDES general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

Print Name: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Date: ☐☐-☐☐-☐☐

Signature: _____

Instructions for Completing Notice of Termination (NOT) Form

Who May File a Notice of Termination (NOT) Form

Permittees who are presently covered under an EPA-issued National Pollutant Discharge Elimination System (NPDES) General Permit (including the 1995 Multi-Sector Permit) for Storm Water Dicharges Associated with Industrial Activity may submit a Notice of Termination (NOT) form when their facilities no longer have any storm water discharges associated with industrial activity as defined in the storm water regulations at 40 CFR 122.26(b)(14), or when they are no longer the operator of the facilities.

For construction activities, elimination of all storm water discharges associated with industrial activity occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with industrial activity from the construction site that are authorized by a NPDES general permit have otherwise been eliminated. Final stabilization means that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

Where to File NOT Form

Send this form to the the following address:

Storm Water Notice of Termination (4203)
401 M Street, S.W.
Washington, DC 20460

Completing the Form

Type or print, using upper-case letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, telephone or write the Notice of Intent Processing Center at (703) 931-3230.

Instructions - EPA Form 3510-7
Notice of Termination (NOT) of Coverage Under The NPDES General Permit for Storm Water Discharges Associated With Industrial Activity

Section I Permit Information

Enter the existing NPDES Storm Water General Permit number assigned to th e facility or site identified in Section III. If you do not know the permit number , telephone or write your EPA Regional storm water contact person.

Indicate your reason for submitting this Notice of Termination by checking th e appropriate box:

If there has been a change of operator and you are no longer the operator of the facility or site identified in Section III, check the corresponding box.

If all storm water discharges at the facility or site identified in Section III have been terminated, check the corresponding box.

Section II Facility Operator Information

Give the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation, rather than the plant or sit e manager. Do not use a colloquial nam e. Enter the complete address and telephone number of the operator.

Section III Facility/Site Location Information

Enter the facility's or site's official or legal name and complete address, including city, state and ZIP code. If the facility lacks a street address, indicate the state, the latitude and longitude of the facility to the nearest 15 seconds, or the quarter , section, township, and range (to the nearest quarter section) of the approximat e center of the site.

Section IV Certification

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed a s follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principa l business function, or any other person who performs similar policy or decisio n making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, State, Federal, or other public facility: by either a principa l executive officer or ranking elected official.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 0.5 hours pe r application, including time for reviewing instructions, searching existing dat a sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief , Information Policy Branch, 2136, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, or Director, Office of Information an d Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number. The designations "AOK" and "LOK" are for administrative purposes and should not be used when ordering publications.

2.1 [Enter Appropriate Subpart Title Here]

ACI INTERNATIONAL (ACI)

P.O. Box 9094
Farmington Hills, MI 48333-9094
Ph: 248-848-3700
Fax: 248-848-3701
Internet: www.aci-int.org
AOK 5/01
LOK 2/01

ACOUSTICAL SOCIETY OF AMERICA (ASA)

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Melville, NY 11747-4502
Ph: 516-576-2360
Fax: 516-576-2377
email: asa@aip.org
Internet: www.asa.aip.org

To order ASA Standards, contact:
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Phone: 412-741-1979
Fax: 412-741-0609
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AIR CONDITIONING AND REFRIGERATION INSTITUTE (ARI)

4301 North Fairfax Dr., Suite 425
ATTN: Pubs Dept.
Arlington, VA 22203
Ph: 703-524-8800
Fax: 703-528-3816
E-mail: ari@ari.org
Internet: www.ari.org
AOK 5/01
LOK 2/01

AIR CONDITIONING CONTRACTORS OF AMERICA (ACCA)

2800 Shirlington Road, Suite 300
Arlington, VA 22206
Ph: 703-575-4477
FAX: 703-575-4449
Internet: www.acca.org
AOK 5/01
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AIR DIFFUSION COUNCIL (ADC)

104 So. Michigan Ave., No. 1500
Chicago, IL 60603
Ph: 312-201-0101
Fax: 312-201-0214
Internet: www.flexibleduct.org
AOK 5/01
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AIR MOVEMENT AND CONTROL ASSOCIATION (AMCA)

30 W. University Dr.
Arlington Heights, IL 60004-1893
Ph: 847-394-0150
Fax: 847-253-0088
Internet: www.amca.org
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ALUMINUM ASSOCIATION (AA)

900 19th Street N.W.
Washington, DC 20006
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Fax: 202-862-5164
Internet: www.aluminum.org
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AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

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Suite 104
Schaumburg, IL 60173-4268
Ph: 847-303-5664

Fax: 847-303-5774
Internet: www.aamanet.org
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LOK 2/01

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

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Fax: 919-549-8933
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Arlington, VA 22203-1900
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Fax: 703-522-2665
Internet: www.abma.com
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AMERICAN CONCRETE PIPE ASSOCIATION (ACPA)

222 West Las Colinas Blvd., Suite 641
Irving, TX 75039-5423
Ph: 972-506-7216
Fax: 972-506-7682
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e-mail: info@concrete-pipe.org
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AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

1330 Kemper Meadow Dr.
Suite 600
Cincinnati, OH 45240
Ph: 513-742-2020
Fax: 513-742-3355
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E-mail: pubs@acgih.org
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AMERICAN FOREST & PAPER ASSOCIATION (AF&PA)

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Fax: 703-684-0242
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Internet: www.aitc-glulam.org
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Internet: www.steel.org
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Fax: 412-741-0609
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AMERICAN RAILWAY ENGINEERING & MAINTENANCE-OF-WAY ASSOCIATION (AREMA)

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e-mail: marketing@asce.org
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Fax: 440-835-3488
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Fax: 305-443-7559
Internet: www.amweld.org
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Grandbury, TX 76049-0690
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Fax: 817-326-6306

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Fax: 253-565-7265
Internet: www.apawood.org
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ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD (ATBCB)

The Access Board
1331 F Street, NW, Suite 1000
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PH: 202-272-5434
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1952 Isaac Newton Square West
Reston, VA 20190
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Fax: 703-733-0584
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Lexington, KY 40512-4052

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E-mail: aabchq@aol.com
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Birmingham, AL 35291
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355 Lexington Ave.
17th floor
New York, NY 10017-6603
Ph: 212-297-2122
Fax: 212-370-9047
Internet: www.buildershardware.com
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BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL (BOCA)

4051 W. Flossmoor Rd.
Country Club Hills, IL 60478
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Fax: 708-799-4981
Internet: www.bocai.org
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405 Enfrente Drive., Suite 200
Novato, CA 94949

Ph: 415-382-0662
Fax: 415-382-8531
Internet: www.calredwood.org
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CARPET AND RUG INSTITUTE (CRI)

310 Holiday Ave.
Dalton, GA 30720
P.O. Box 2048
Dalton, GA 30722-2048
Ph: 706-278-0232
Fax: 706-278-8835
Internet: www.carpet-rug.com
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Chattanooga, TN 37421
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Fax: 423-892-0817
Internet: www.cispi.org
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CEILINGS & INTERIOR SYSTEMS CONSTRUCTION ASSOCIATION (CISCA)

1500 Lincoln Highway, Suite 202
St. Charles, IL 60174
Ph: 630-584-1919
Fax: 630-584-2003
Internet: www.cisca.org
AOK 5/01
LOK 6/00

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

1600 Clifton Road
Atlanta, GA 30333
PH: 404-639-3534
FAX:
Internet: www.cdc.gov
AOK 6/01
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CHEMICAL FABRICS & FILM ASSOCIATION (CFFA)

1300 Sumner Ave.
Cleveland OH 44115-2851
PH: 216-241-7333
FAX: 216-241-0105
www.chemicalfabricsandfilm.com/welcome.htm
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CHLORINE INSTITUTE (CI)

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Washington, DC 20036
Ph: 202-775-2790
Fax: 202-223-7225
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COMPRESSED AIR AND GAS INSTITUTE (CAGI)

1300 Sumner Ave.
Cleveland OH 44115-2851
PH: 216-241-7333
FAX: 216-241-0105
www.cagi.org/welcome.htm
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COMPRESSED GAS ASSOCIATION (CGA)

1725 Jefferson Davis Highway, Suite 1004
Arlington, VA 22202-4102
Ph: 703-412-0900
Fax: 703-412-0128
Internet: www.cganet.com
e-mail: Customer_Service@cganet.com
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CONCRETE REINFORCING STEEL INSTITUTE (CRSI)

933 N. Plum Grove Rd.
Schaumburg, IL 60173-4758
Ph: 847-517-1200
Fax: 847-517-1206
Internet: www.crsi.org
AOK 5/01
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CONSUMER PRODUCT SAFETY COMMISSION (CPSC)

4330 East-West Highway
Bethesda, Maryland 20814-4408
Ph: 301-504-0990
Fx: 301-504-0124 and 301-504-0025
Internet: www.cpsc.gov
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CONVEYOR EQUIPMENT MANUFACTURERS ASSOCIATION (CEMA)

6724 Lone Oak Blvd.
Naples, Florida 34109
Ph: 941-514-3441
Fax: 941-514-3470
Internet: www.cemanet.org
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530 Wells Fargo Dr., Suite 218, Houston, TX 77090
Ph: 281-583-4087
Fax: 281-537-1721
Internet: www.cti.org
AOK 5/01
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COPPER DEVELOPMENT ASSOCIATION (CDA)

260 Madison Ave.
New York, NY 10016
Ph: 212-251-7200
Fax: 212-251-7234
Website: www.copper.org
E-mail: staff@copper.org
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CRANE MANUFACTURERS ASSOCIATION OF AMERICA (CMAA)

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Charlotte, NC 28217 USA
Ph: 704-676-1190/800722-6832
Fx: 704-676-1199
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Organization no longer exists.

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http:pw2.netcom.com/~flowers
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1300 Sumner Avenue
Cleveland, OH 44115-2851
Ph: 216-241-7333
Fax: 216-241-0105
Internet: www.dasma.com
e-mail: dasma@dasma.com
AOK 5/01
LOK 6/00

DOOR AND HARDWARE INSTITUTE (DHI)

14150 Newbrook Dr.Suite 200
Chantilly, VA 20151-2223
Ph: 703-222-2010
Fax: 703-222-2410
Internet: www.dhi.org

e-mail: techdept@dhi.org
AOK 5/01
LOK 6/00

DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA)

245 Riverchase Parkway East, Suite 0
Birmingham, AL 35244
Ph: 205-402-8700
Fax: 205-402-8730
Internet: www.dipra.org
E-mail: info@dipra.org
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-- End of Section --

SECTION 01180

RADIOACTIVE MATERIALS PROCEDURES

PART 1 GENERAL

1.1 SCOPE

This section covers the use of items containing radioactive substances, such as soil density measuring devices, on military property or installations.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY (DA)

AR 385-11	Ionizing Radiation Protection

1.3 REQUIREMENTS

Use of radioactive material on military property or installations shall conform to the following requirements.

1.3.1 Standards

The Contractor shall comply with AR 385-11.

1.3.2 Permit

Department of the Army (DA) radiation permits are required for use, storage, possession, and disposal of radiation sources by non-Army agencies (including civilian contractors), except a DA permit is not required for temporary use or storage (less than 15 consecutive calendar days) if the local commander determines that adequate safety exists. Concurrence of the Installation Commander and Headquarters, Department of the Army is required to obtain a DA permit. The Contractor shall submit six (6) copies of a completed DA Form 3337, through the Contracting Officer, to the Installation Commander, at least 60 days prior to desired start date or date of arrival of the source, whichever is sooner. The Commander will forward copies to the approving authority for appropriate action.

a. Even if Nuclear Regulatory Commission (NRC) license already permits use or storage of radioactive sources at unspecified Army installations, the Contractor still needs a DA permit.

b. Local Commanders may approve temporary use or storage of sealed radioactive sources by users with a proper NRC license, or Agreement State license.

c. In all cases, the Contractor shall restore the property to NRC unrestricted use criteria.

1.4 INITIAL NOTIFICATION

Once the Contractor has received written approval for use of the radioactive material through the Contracting Officer, the radioactive material may be brought onto the installation. The Contractor shall notify the Installation Commander immediately upon bringing the material onto the installation, and again 3 working days prior to the initial use of the materials.

1.5 COMPLETE NOTIFICATION

The Contractor shall notify the Contracting Officer immediately upon completion of use, and when the material is removed from the installation.

1.6 VIOLATIONS

The Contractor will be subject to inspection by the Contracting Officer, the JSAC, and Federal and State agencies or their designated representatives at all times when the materials are on the installation. Any violations of the conditions of the approval, or of applicable regulations, will require immediate cessation of work until the cause is corrected, and written approval for re-start of work is received by the Contracting Officer from the Installation Commander.

1.7 ACCIDENTS

Accidents or incidents involving the radioactive material, and any known or potential exposure of Contractor or non-Contractor personnel to radiation, shall be reported immediately to the Contracting Officer and the JSAC, and operations suspended until the circumstances have been evaluated by the Installation Commander, and approval for the re-start has been received by the Contracting Officer.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

-- End of Section --

SECTION 01310

CONFIGURATION MANAGEMENT PLAN

PART 1 GENERAL

The Configuration Management (CM) Plan describes the Government's procedures for controlling changes to the design baseline. The Internal Configuration Management (ICM) Plan describes the Contractor's approach to maintaining logical and orderly listing of changes and proposed changes to the contract documents.

PART 2 PRODUCTS

The contractor will be given a copy of the Government's CM Plan after contract award. This specification contains instructions for the Contractor to follow in support of configuration management.

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall be responsible for CM support of the project throughout the life of this contract. The Contractor shall develop, for approval, an ICM Plan and changes thereto that will detail the procedures for how the Contractor will accomplish ICM in support of the National Missile Joint CM Plan. The Contractor shall implement the activities required by the approved plan. The Contractor shall participate in the Government's CM meetings meetings as a technical advisor. Major subcontractors (whose subcontract has a dollar value in excess of $200,000 per year) may also be required to participate.

3.2 DEFINITIONS

a. A Facility Change Proposal (FCP) is a proposal to affect a change to the established baseline.

b. A waiver is a written authorization to accept nonconforming material or other designated items which, during construction, fabrication, or preparation or after having been submitted for inspection, are found to depart from specific requirements, but which are considered suitable for use "As-is" or after repair by an approved method.

c. A deviation is a written authorization granted prior to a departure from particular performance or design requirements for a specific item and a specific period of time. A deviation differs from an engineering change in that an approved engineering change requires revision to the baseline, whereas a deviation does not.

d. A Request for Information (RFI) is a written contractor request for clarification. The contractor shall establish computerized RFI for preparation, transmission to the Government, tracking and reporting system and shall submit procedures for preparing and processing RFIs to the Government for approval.

3.3 FACILITY CHANGE PROPOSALS

The Contractor shall coordinate all Facility Change Proposals (FCPs), waivers, and deviations that originate from divisions/branches of the organization, and subcontractors. All FCPs shall be accounted for against the specific facility/building/utilities at a specific site. The Contractor shall establish a computerized change tracking system and make its use available to the Government.

3.3.1 FCP Execution

The Contractor shall execute FCPs as follows:

a. Facility construction changes to the baseline can only be made with an approved FCP, waiver, or deviation. A Request for Information (RFI) cannot be used in lieu of an FCP, waiver or deviation.

b. The Contractor will be responsible for preparing FCPs for Contractor proposed changes as well as Government requested changes.

c. The Contractor shall minimize changes to the established design and operational methodologies. FCPs shall be used only when necessary (1) to ensure safety, (2) to correct errors, resolve deficiencies or conflicts to achieve operational requirements, (3) to improve operations or performances, (4) comply with revisions in emission standards or other regulatory requirements, or (5) to substantially reduce cost or schedule.

d. A baseline change is authorized only after the Government approves an FCP.

e. The Contractor shall submit in the FCP all cost and schedule impacts. The Contractor shall list the drawings or specifications impacted by an FCP and show cost.

f. Once approved, the scope of an FCP cannot be changed. This includes changes to meet the approved funding. A new FCP that defines the changes must be written and submitted for approval.

3.4 REQUEST FOR INFORMATION

The RFI shall be used only for clarification, and any Government guidelines that may inadvertently be provided and/or erroneously perceived as a function of the RFI process will not be subject to a claim for payment of work done.

3.5 AS-BUILT CONFIGURATION LIST (ABCL)

The ABCL shall contain the unique identifiers established for specific facility/building/utilities at a specific site. The identifier shall all appear on the top assembly drawing. The list will reflect all changes (FCPs) that affected the drawing, the update required to implement the FCP (EO, Drw. Rev., etc) and the implementation authority. In addition, if a deviation or waiver is written, it shall be listed with its approval authority.

-- End of Section --

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

SD-19 Operation and Maintenance Manuals

1.2 DEFINITIONS

1.2.1 Shop Drawings

Drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construct contract, showing in detail

(1) the proposed fabrication and assembly of structural elements and

(2) the installation (i.e., form, fit and attachment details) of materials of equipment.

It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. Facility systems, subsystems and functional components shall be identified by their facility commissioning identifier.

1.3 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.3.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. They are considered to be shop drawings. All shop drawing deviations from the design drawing shall be clearly indicated, both on the drawing and the form accompanying it. Deviations shall be authorized prior to submittal through the RFI or FCP process.

1.3.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings".

1.4 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.5 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes - Cost Reimbursable" shall be given promptly to the Contracting Officer.

1.6 WITHHOLDING PAYMENT

Payment for materials incorporated in this work will be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's,

manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.1.1 Distribution for Work at Fort Greely

a. Three (3) copies to Ft. Greely Resident Engineer's Office.

b. Two (2) copies to Corps of Engineers
Attention: CEPOA-PM-N (Rodriquez)
Box 898, Anchorage, AK 99506-0898
Deliver other than U.S. Mail to:
977 Davis Hwy, Rm 213, Ft. Richardson, AK

c. Two (2) copies to Corps of Engineers
Attention: CEHNC-MD (Romeo)
P.O. Box 1600
Huntsville, AL 35807-4301
Deliver other than U.S. Mail to:
4820 University Square, Huntsville, AL 35816-1822

d. Two (2) copies to Black and Veatch
Attention: Bob Roennigke
6601 College Blvd.
Overland Park, KS

3.1.2 Distribution for Work at Eareckson Air Station

a. Three copies to the Eareckson AS Resident Engineer's Office

b. Two (2) copies to the Corps of Engineers
Attention: CEPOA-PM-N (Ruff)
Box 898
Anchorage, AK 99506-0898
other than USPS to 977 Davis Hwy, Rom 213, Fort Richardson, AK

3.1.3 Commissioning Authority

The Contractor shall include the Commissioning Authority (Section 01660 COMMISSIONING) on equipment and material submittals.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms to the Contracting Officer for approval within 30 calendar days after Notice to Proceed. The Contractor shall keep this register up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the

life of the contract. The submittal register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

Samples for testing shall be delivered in accordance with Section 01451 CONTRACTOR QUALITY CONTROL. All other submittals shall be delivered to the Contracting Officer.

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Four copies of the submittal will be retained by the Contracting Officer and one copy of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of

the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR GOV'T. APPROVAL ☐ FIO

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* *b.*	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction no. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruction No. 6)* *h.*	FOR CE USE CODE *i.*
				SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*			

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.

_____

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on a separate form.

5. Separate transmittal form will be used for submittals under separate sections of the specifications.

6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.

9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A	--	Approved as submitted.	E	--	Disapproved (See attached).
B	--	Approved, except as noted on drawings.	F	--	Receipt acknowledged.
C	--	Approved, except as noted on drawings. Refer to attached sheet resubmission required.	FX	--	Receipt acknowledged, does not comply as noted with contract requirements.
D	--	Will be returned by separate correspondence.	G	--	Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

SECTION 01411

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

This section covers protection of environmental resources exposed to potential effects from construction activities.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

STATE OF ALASKA ADMINISTRATIVE CODE (AAC)

18 AAC 72	Wastewater Disposal Regulations

CODE OF FEDERAL REGULATIONS (CFR)

43 CFR 10	Native American Grave Protection and Repatriation Regulations

ENGINEERING MANUALS (EM)

EM 385-1-1	(1996) U.S. Army Corps on Engineers Safety and Health Requirements Manual

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Environmental Protection Plan; GA

If an environmental regulatory agency requires that the documents are to be certified by a Professional Engineer(PE) registered in the State of Alaska, the Contractor shall be registered in the State of Alaska and shall meet the requirements of the State of Alaska regulations.

Notice of Intent; FIO

Notice of Termination; FIO

1.4 APPLICABLE REGULATIONS

The Contractor shall be responsible for ensuring that the project is in full compliance with all applicable Federal, State, Local and Regional environmental laws and regulations including but not limited to:

Clean Water Act
Clean Air Act
Safe Drinking Water Act
Endangered Species Act
National Historical Preservation Act
Resource Conservation and Recovery Act (RCRA)
Comprehensive Environmental Response Compensation and Liability Act (CERCLA)
Toxic Substance Control Act (TSCA)

1.5 ENVIRONMENTAL PROTECTION PLAN

Within 30 calendar days of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan not later than 30 calendar days after receipt of the Notice to Proceed. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions which the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance of the Contractor s plan or an interim plan covering the work to be performed. The environmental protection plan shall include, but not be limited to, the following:

1.5.1 List of State and Local Laws and Regulations

The Contractor shall provide as part of the Environmental Protection Plan a list of all State and local environmental laws and regulations which apply to the construction operations under the Contract.

1.5.2 Spill Control Plan

The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

a. The name of the individual who will be responsible for implementing and supervising the containment and cleanup.

b. Training requirements for Contractor's personnel and methods of accomplishing the training.

c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

d. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

e. The methods and procedures to be used for expeditious contaminant cleanup.

f. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

1.5.3 Contaminant Prevention Plan

As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

1.5.4 Environmental Monitoring

The Contractor shall include in the plan the details of environmental monitoring requirements under the laws and regulations and a description of how this monitoring will be accomplished.

1.6 ENVIRONMENTAL PERMITS, NOTICES, REVIEWS AND/OR APPROVALS

The Contractor shall be responsible for contacting the appropriate Federal, State, Regional, and local environmental agencies and determining the required environmental construction and operating permits, notices, reviews and/or approvals required for the project.

1.6.1 Coordination

The Contractor shall be responsible for coordination with the Contracting Officer, and the Federal, State, and/or local governing agency for all

environmental compliance, permits, notices, reviews and/or approvals required for the project.

1.6.2 Applications, Supporting Material, and Fees

The Contractor shall obtain and complete permit applications and notices. The Contractor is responsible for preparing all supporting material, including but not limited to engineering reports, emission surveys, diagrams, pollutant load calculations, etc. If, in lieu of permits, the governing agency requires review and approval of the design, the Contractor shall submit and obtain approval of the design and associated documents. The Contractor shall be responsible for all fees associated with the permits, applications, reviews, approvals, and notices.

1.6.3 Appendix

Copies of all environmental permits, notices, and/or approvals along with copies of the applications, supporting documents, and/or notifications shall be included in an appendix to the Environmental Protection Plan.

1.7 LAND RESOURCES

1.7.1 General

For the purposes of this section, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. Land and water resources within the project boundaries and outside the limits of the work shall be preserved in their undisturbed condition or be restored/mitigated to a condition after completion of construction that will appear natural and not detract from the appearance of the area. Insofar as possible, the Contractor shall confine its construction activities to areas defined by the plans or specifications.

1.7.2 Protection of Landscape

The Contractor shall not deface, injure, or destroy trees, shrubs, or other landscaping, or remove or cut same without permission from the Contracting Officer. The Contractor shall minimize impacts to the existing landscape in selecting sites for field offices and storage areas. The Contractor shall restore landscape features damaged or destroyed during construction operations.

1.7.3 Control of Runoff

Best management practices, such as use of silt fences to control water flow, minimizing amount of area exposed during grading, and revegetating slopes as quickly as possible, shall be used to control runoff in order to avoid erosion and disturbance of wetlands during construction.

1.7.4 Erosion and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures in accordance with local, state, and federal regulations. The erosion and sediment controls selected and maintained by the Contractor shall be such that Federal, State, and local water quality standards are not violated as a result of the Contractor's construction activities. The area of bare soil exposed at any one time by construction operations should be held to a minimum. The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as require by the Contract documents and the NPDES General Permit No. AK-R-10-0000 for Construction Activities. Any temporary measures shall be removed upon completion of the construction activities. See Section 01015 SPECIAL ITEMS for NPDES requirements.

1.7.5 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved. Borrow areas shall be managed to minimize erosion and to prevent sediment from entering nearby waters. Spoil areas shall be managed and controlled to limit spoil intrusion into areas designated on the drawings and to prevent erosion of soil or sediment from entering nearby waters. Spoil areas shall be developed in accordance with the grading plans. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from despoilment.

1.8 NPDES

Work shall comply with EPA National Pollutant Discharge Elimination System (NPDES General Permit No. AK-R-10-0000 for Construction Activities).

a. Storm Water Pollution Prevention Plan: The Contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) in accordance with Alaska Department of Transportation and Public Facilities Manual titled Contractor Guidance for Preparing and Executing Storm Water Pollution Prevention Plans, Oct. 92. The Contracting Officer will retain authority assigned therein to the State. The SWPPP shall be submitted to the Contracting Officer for review and approval as part of the Environmental Protection Plan specified in Section 01411 ENVIRONMENTAL PROTECTION.

b. Notice of Intent: The Contractor shall complete EPA Form 3510-9, Notice of Intent for Storm Water Discharges Associated with Construction Activity Under the NPDES General Permit, in accordance with the aforementioned manual. A copy of the form is attached hereto and made a part of these specifications. Sections II and III have been completed in advance by the Government for this project. The Contractor shall complete Section I, IV, and V and submit the form, along with the SWPPP and a one-page description of the project, to the Contracting Officer for review. Inquiries regarding the information provided in Sections II and III should be directed to the Project Manager, Alaska District

Corps of Engineers, through the Contracting Officer.

c. Filing: Upon receipt of satisfactory submittal from the Contractor, the Government will promptly complete a separate 3510-6 and forward both the Contractor-prepared and Government-prepared forms to the NPDES Program Director. In accordance with applicable requirements, no onsite work shall be performed until two days after the documents have been post marked, notwithstanding any other provisions of the contract.

d. ADEC: The Government will forward copies of both Form 3510-9's, along with the SWPPP and the one-page project description, to the Alaska Department of Environmental Conservation (ADEC) in accordance with State of Alaska regulations. The final plans and specifications will be included. The Contractor shall pay the fee required for review in accordance with 18 AAC 72.

e. Notice of Termination: Upon completion of work at the project site, the Contractor shall prepare EPA Form 3510-7, Notice of Termination of Coverage Under the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity, in accordance with the requirements stated on the form. A copy of the form is attached hereto and made a part of these specifications. The completed form shall be submitted to the Contracting Officer within 10 days after the earliest date that final site conditions meet filing requirements. The Government will forward the form to the NPDES Program Director.

1.9 WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters, watershed and disturbance of wetlands. Toxic or hazardous chemicals shall not be applied to soil or vegetation unless otherwise indicated. All water areas affected by construction activities shall be monitored by the Contractor.

1.9.1 Waste Water From Construction Activities

Waste waters directly derived from construction activities, such as on-site material processing, concrete curing, foundation and concrete clean-up, concrete trucks, forms, etc. shall not be allowed to enter water ways nor be discharged prior to being treated to remove pollutants. Waste water from construction activities shall be disposed off Government property in accordance with all Federal, State, and local laws and regulations.

1.9.2 Eareckson AS Watershed Protection

Hazardous materials and hazardous wastes which can be spilled, poured, or could leak or flow into the drinking water supply shall not be transported through the watershed. Hazardous materials are defined as those materials that, due to their chemical, physical or biological nature pose a risk to human health and/or the environment. Hazardous wastes are defined in 40

CFR 261, or as defined by applicable Federal, State and local regulations.

1.9.3 Non-Potable Water Source

If required, surface water located outside of the watershed may be used for non-potable water. The contractor's requirements for non-potable water will not be met using the potable water source. The contractor is responsible for obtaining any required water use permits from the State of Alaska. The Contractor must remove all equipment associated with the water withdrawal activity from the lakes at the conclusion of each day's operations. For the equipment to remain in the surface water source for more than one day, the Contractor must obtain the proper real estate instrument for exclusive use of the surface water source.

1.9.3.1 Fort Greely Surface Water

Surface water located inside of the watershed may be used for non-potable water. Requests to establish a water point on the installation will be subject to the access restrictions of the installation and Federal and State regulations. The contractor may access Jarvis Creek from within DOD lands. A suitable site will be established between the local DPW representative and the contractor acting through the Contracting Officer's Representative. The contractor may develop the wells already available on site.

1.9.3.2 Eareckson AS Surface Water

If required, surface water located outside of the watershed may be used for concrete batch plant operations. Specific lakes for Eareckson AS approved for use are Sweeney Lake, June Lake, Myrtle Lake, unnamed pond along Spine Road, and unnamed pond along Army Drive near Spine Road.

1.9.4 Dewatering of Ground Water

The Contractor shall obtain a State National Pollutant Discharge Elimination System (NPDES)permit specific for construction dewatering prior to discharging ground water to "waters of the State" or shall land apply the water on-site in accordance with all Federal, State, and local laws and regulations. For land application , the Contractor shall discharge the water at a rate which allows the water to percolate into the soil. No sheeting action; soil erosion; discharge into storm sewers, defined drainage areas, or into the "waters of the State"; and/or saturation or flooding of adjacent properties shall occur.

1.9.5 Storm Water Discharge

The Contractor shall control storm water discharge in accordance with the Storm Water Pollution Prevention Plan (SWPPP) that is required by the NDPDES General Permit No. AK-R-10-0000 for Construction Activities. See Section 01015 for NPDES requirements.

1.10 AIR POLLUTION

The Contractor shall maintain excavations, embankments, stockpiles, and all

other work areas within or outside the project boundaries free from dust which would cause a hazard or nuisance to others. Sprinkling or similar methods shall be employed to control dust. If sprinkling is used, the Contractor shall retain sufficient, suitable equipment at the site and repeat applications at such intervals as to keep all parts of the disturbed area damp at all times. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

1.11 CULTURAL RESOURCES

The Contractor shall cease construction activities in the immediate area and notify the Contracting Officer if cultural materials (particularly human remains) are unexpectedly discovered. The Contractor shall follow the guidance provided in 43 CFR 10, as required, for subsequent actions.

1.12 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or its authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

1.13 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the prime Contractor.

1.14 IMPLEMENTATION

Prior to commencement of work, the Contractor shall meet with representatives of the Contracting Officer to develop mutual understandings relative to compliance with this provision and administration of the environmental pollution control program.

1.14.1 Environmental Assessment of Contract Deviations

The Contract specifications have been prepared to comply with the special conditions and mitigation measures of an environmental nature which were established during the planning and development of this project. The Contractor is advised that deviations from the drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, alternate access routes, etc.) could result in the requirement for the Government to reanalyze the project from an environmental standpoint. Deviations from the construction methods and procedures indicated by the plans and specifications which may have an environmental impact will require an extended review, processing, and approval time by the Government. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.15 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During construction, the Contractor shall conduct frequent training courses for its maintenance personnel, covering methods of detecting pollution, familiarity with pollution standards, and installation and care of vegetation covers, plants and other facilities to prevent and correct pollution.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 FISH AND WILDLIFE

The Contractor shall minimize interference with, disturbance to, and damage of fish and wildlife including their habitat. The Contractor shall include a list of species that require special attention along with measures for their protection in the Environmental Protection Plan.

3.2 PREVIOUSLY USED EQUIPMENT

The Contractor shall thoroughly clean all construction equipment previously used at other sites prior to it bringing it into the work areas. The Contractor shall ensure that soil residuals are removed and that egg deposits from plant pests are not present. The Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.3 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards (both statutory and contractual), installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/ pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall be discussed. Other items to be discussed shall include recognition and protection of archaeological sites, artifacts, and endangered species and their habitat that are known to be in the area.

3.4 POST CONSTRUCTION CLEANUP

The Contractor shall be responsible for the clean up of all areas used for construction in accordance with 01780 CLOSEOUT SUBMITTALS. The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul

roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise instructed by the Contracting Officer.

3.5 COMPLIANCE.

Not withstanding the requirements of this section and approval of the Contractor's Environmental Protection Plan, nothing herein shall be construed as relieving the Contractor of all applicable Federal, State, and local environmental protection laws and regulations.

3.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local laws or regulations, permits, and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action when approved. If the Contractor fails to comply within 24 hours, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

3.7 ATTACHMENTS

EPA Forms 3510-6 and 3510-7

-- End of Section --

SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(1996) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(1998) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO 9000	Quality Systems

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective quality control program. All costs associated therewith shall be included in the applicable lump sum prices contained in the proposal schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement CQC responsibilities. The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started. The CQC Plan shall conform to ISO 9000 Standards regarding documentation tracking and interface.

3.2.2 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project manager.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 30 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 8 years construction experience on construction similar to this contract. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager. The Contractor shall provide a letter to the Government that describes the responsibilities and delegates sufficient authority for this individual to adequately perform the CQC duties.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the following areas: civil, mechanical and electrical. These individuals may be employees of the prime or subcontractor; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals shall have no other duties other than quality control.

Experience Matrix

	Area	Qualifications
a.	Mechanical	Graduate Mechanical Engineer with 3 yrs related experience
b.	Electrical	Graduate Electrical Engineer with 3 yrs related experience
c.	Civil (Structural)	Graduate Civil (Structural) with 3 yrs related experience
d.	Submittals Clerk	1 year experience

3.4.4 Additional Requirement

In addition to the above experience and/or education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". For Contractors working in Alaska, this course is periodically offered at the Associated General Contractors of Alaska offices in Anchorage and Fairbanks.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall

revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS

Submittals shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

a. A review of each paragraph of applicable specifications.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. Review of provisions that have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the

preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, onsite production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed actual costs to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory.

3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall be

reimbursable under this contract. Samples of materials for test verification and acceptance testing by the Government shall be delivered to a laboratory to be determined by the Contracting Officer.

Coordination for each specific test, exact delivery location, and dates will be made through the Contracting Officer.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the notice to proceed, or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at this inspection. Additional Government and non-Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, major commands, and the Prime Contractor (PRIME) may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection.

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and

shall be on an acceptable form that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take

immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

CONTRACTOR'S QUALITY CONTROL REPORT (CQC) (ER 1180-1-6)	DATE	REPORT NO.
CONTRACT NO. AND NAME OF CONTRACTOR:	DESCRIPTION AND LOCATION OF THE WORK:	

WEATHER CLASSIFICATION:

CLASS A No interruption of any kind from weather conditions occurring on this or previous shifts.
CLASS B Weather occurred during this shift that caused a complete stoppage of all work.
CLASS C Weather occurred during this shift that caused a partial stoppage of work.
CLASS D Weather overhead excellent or suitable during shift. Work completely stopped due to results of previous adverse weather.
CLASS E Weather overhead excellent or suitable during shift but work partially stopped due to previous adverse manner.
OTHER Explain.

CLASSIFICATION:

CLASS _____

TEMPERATURE:

MAX ____ MIN ____

PRECIPITATION:

INCHES _____

CONTRACTOR/SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY: (Attach list of items of equipment either idle or working as appropriate.)

a. _____
b. _____
c. _____
d. _____
e. _____
f. _____

1. WORK PERFORMED TODAY: (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.)

2. TYPE AND RESULTS OF INSPECTION: (Indicate whether P-Prepatory, I-Initial, or F-Followup and include satisfactory work completed or deficiencies with action to be taken.)

3. TESTS REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS:

4. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

5. REMARKS: (Cover any conflicts in plans, specifications or instructions: acceptability of incoming materials; offsite surveillance activities; progress of work, delays, causes and extent thereof; days of no work with reasons for same.)

6. SAFETY: (Include any infractions of approved safety plan, safety manual, or instructions from Government personnel. Specify correctve action taken).

CONTRACTOR: _____

CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.

_____
CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

SECTION 01452

SPECIAL INSPECTION FOR SEISMIC-FORCE-RESISTING SYSTEMS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ACI INTERNATIONAL (ACI)

ACI 318/318R	(1995) Building Code Requirements for Structural Concrete and Commentary
ACI 530/530.1	(1995) Building Code Requirements for Masonry Structures

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC Pub No. S341	(1997) Seismic Provisions for Structural Steel Buildings Including supplement No. 1, February 15, 2000
AISC Pub No. S342L	(1993) Load and Resistance Factor Design Specification for Structural Steel Buildings

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 435/A 435M	(1990) Straight-Beam Ultrasonic Examination of Steel Plates
ASTM A 615/A 615M	(1996a) Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 898/A 898M	(1991) Straight Beam Ultrasonic Examination of Rolled Steel Structural Shapes

BUILDING SEISMIC SAFETY COUNCIL (NEHRP)

NEHRP Provisions	(Feb 1998) NEHRP Recommended Provisions for Seismic Regulations for New Buildings and Other Structures

U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA 302	(Feb 1998) NEHRP Recommended Provisions for Seismic Regulations for New Buildings and Other Structures

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals with an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-13 Certificates

Special Inspector; GA

Certification attesting that the Special Inspector is qualified by knowledge and experience to perform the specified Special Inspections. Information, which provides evidence of the knowledge and experience necessary to qualify a person as a Special Inspector for the category of work being certified, will accompany the qualification.

Quality Assurance Plan; GA

A copy of the Quality Assurance Plan covered by a certificate indicating that the plan meets the content specified in this section.

1.3 SPECIAL INSPECTOR

A Special Inspector shall be used to perform Special Inspections required by this section. The Special Inspector is a person employed by the Contractor and approved by the Government as being qualified by knowledge and experience to perform the Special Inspection for the category of work being constructed. Special Inspectors shall perform their duties independent from the construction quality control staff employed by the Contractor. More than one Special Inspector may be required to provide the varied knowledge and experience necessary to adequately inspect all of the categories of work requiring Special Inspection. The Special Inspector shall be one of the following unless otherwise approved by the Government:

a. A person employed and supervised by the registered design professional in responsible charge for the design of the designated seismic system or the seismic-force-resisting system for which the special inspector is engaged.

b. A person employed by an approved inspection and/or testing agency who is under the direct supervision of a registered design professional also employed by the same agency, using inspectors or technicians qualified by recognized industry organizations as approved by the Government.

c. A manufacturer or fabricator of components, equipment, or machinery that has been approved for manufacturing components that satisfy seismic safety standards and that maintains a quality assurance plan approved by the Government. The manufacturer or fabricator is required to provide evidence of such approval by clearly marked on each designated seismic system or seismic-force-resisting system component shipped to the construction site.

1.4 QUALITY ASSURANCE PLAN

A quality assurance plan shall be developed containing the following:

a. A list of all items that require quality assurance Special Inspection and testing, including the type, frequency, extent, and duration of the special inspection for each item on this list.

b. A list of all items that require quality assurance testing, including the type and frequency of testing for each item on this list.

c. The content, distribution, and frequency of special inspection reports.

d. The content, distribution, and frequency of testing reports.

e. The procedures, controls, and people used within the Contractor's organization to develop, sign, and distribute Special Inspection and Testing reports along with the position title and pertinent qualifications of all Contractor personnel involved.

1.5 SPECIAL INSPECTION

The Special Inspection for seismic-resisting system components shall be in accordance with Chapter 3 of FEMA 302 and this section. Special Inspector personnel shall be in addition to the quality control inspections and inspectors required elsewhere in this section.

1.5.1 Continuous Special Inspection

Continuous special inspection is the full time observation of the work by the Special Inspector present in the work area whenever work is being performed. Continuous special inspection shall be performed where specified for items as indicated.

1.5.2 Periodic Special Inspection

Periodic special inspection is the intermittent observation of the work by a Special Inspector present in the work area while work is being performed. The intermittent observation periods shall be at times of significant work, shall be recurrent over the complete work period, and shall total at least 25 percent of the total work time. Periodic special inspection shall be performed where specified for items as indicated and in Section 15070 SEISMIC PROTECTION FOR MECHANICAL EQUIPMENT and 16070 SEISMIC PROTECTION FOR ELECTRICAL EQUIPMENT.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PERFORMANCE OF INSPECTIONS

Special Inspections shall be performed for the following items where specified and as indicated:

3.1.1 Reinforcing Steel

Periodic special inspection during and upon completion of the placement of

reinforcing steel in shear walls.

3.1.2 Structural Concrete

Periodic special inspection during and on completion of the placement of concrete in boundary members of shear walls.

3.1.3 Structural Masonry

a. Periodic special inspection during the preparation of mortar, the laying of masonry units, and placement of reinforcement and prior to placement of grout.

b. Continuous special inspection during grouting, consolidation and reconsolidation and placement of bent-bar anchors.

3.1.4 Structural Steel

a. Continuous special inspection for all structural welding (including shop welds), except that periodic special inspection is permitted for single-pass or resistance welds and welds loaded to less than 50 percent of their design strength provided the qualifications of the welder and the welding electrodes are inspected at the beginning of the work and all welds are inspected for compliance with the approved construction documents at the completion of welding.

b. Periodic special inspection in accordance with the NEHRP Provisions for the installation of bolts in moment frames and braced frames except that bolts not required to be fully tensioned need not be inspected for bolt tension, other than to ensure that the plies of the connected elements have been brought into snug contact. Bolts not requiring tensions shall be indicated on the drawings.

3.1.5 Architectural Components

Special inspection of the architectural components shall assure that the methods of anchoring and fastening are being complied with at the onset of construction of the components, and that the specified or shown number, spacing, and types of fasteners were actually installed. Special inspection for architectural components shall be as follows:

a. Periodic special inspection during the erection and fastening of exterior cladding, interior nonloadbearing partition walls and exterior nonloadbearing walls, except for structures 30 feet or less in height and cladding and veneer weighing 5 pounds per square foot or less.

b. Periodic special inspection during the anchorage of access floors and suspended ceilings and storage racks 8 feet or greater in height.

3.1.6 Mechanical and Electrical Components

Special inspection of the mechanical and electrical components shall assure that the methods of anchoring and fastening the components is appropriate for the MC-1 equipment designations list in Section 16070 SEISMIC PROTECTION FOR ELECTRICAL EQUIPMENT and 15070 SEISMIC PROTECTION FOR MECHANICAL EQUIPMENT.

3.2 TESTING

The special inspector shall be responsible for verifying that the testing requirements are performed by an approved testing agency for compliance with the following, where indicated:

a. Reinforcing Steel: Special testing of reinforcing shall be as follows:

(1) Examine certified mill test reports for each shipment of reinforcing steel used in reinforced concrete boundary members of reinforced concrete shear walls and reinforced masonry shear walls. The special inspector shall determine conformance with the construction documents.

(2) Examine the reports for chemical tests, done in accordance with Sec. 3.5.2 of ACI 318/318R, which were performed to determine the weldability of ASTM A 615/A 615M reinforcing steel.

b. Structural Concrete: Verify that samples of structural concrete obtained at the project site, along with all material components obtained at the batch plant, have been tested in accordance with the requirements of ACI 318/318R and comply with all acceptance provisions contained therein.

c. Structural Masonry: Verify that all quality assurance testing of structural masonry along with all material components is in accordance with the requirements of ACI 530/530.1 and complies with all acceptance provisions contained therein.

d. Structural Steel:

(1) Verify that all quality assurance testing needed to confirm required material properties contained in Section 05120 STRUCTURAL STEEL and given in the quality assurance plan has been done in accordance with applicable provisions in AISC Pub No. S341 and AISC Pub No. S342L and that the test results comply with all acceptance provisions contained therein.

(2) When a flange or a plate of steel member with a base metal thickness greater than 1.5 inches, is joined by welding so that the flange or plate is subjected to through-thickness weld shrinkage strains, verify that the required ultrasonic testing for discontinuities behind and adjacent to such welds has been done after joint completion. Further verify that any material discontinuities rejected on the basis of the requirements contained in Section 05120 STRUCTURAL STEEL and ASTM A 435/A 435M or ASTM A 898/A 898M, (Level 1 Criteria) were repaired and were retested after the repairs and found acceptable.

e. Seismically Isolated Structures: Verify that the required system and component tests for seismically isolated structures have been done in accordance with FEMA 302 and comply with all acceptance provisions contained therein.

f. Energy Dissipation Systems: Verify that the required system and component tests for seismic energy dissipation systems have been done in accordance with FEMA 302 and comply with all acceptance provisions contained therein.

3.3 REPORTING AND COMPLIANCE PROCEDURES

a. Each special inspector shall complete daily special inspection

report on an approved form. The report shall list the work inspected that day, and uncorrected deficiencies, and approved corrected deficiencies. All deficiencies and proposed corrections shall be submitted to the Government for approval.

b. On the first day of each month, the Contractor shall furnish to the Government five copies of the combined progress reports of the special inspector's observations. These progress reports shall list all special inspections of construction or reviews of testing performed during that month, note all uncorrected deficiencies, and describe the corrections made both to these deficiencies and to previously reported deficiencies. Each monthly report shall be signed by all special inspectors who performed special inspections of construction or reviewed testing during that month, regardless of whether they reported any deficiencies . Each monthly report shall be signed by the Contractor.

c. At completion of construction, each special inspector shall prepare and sign a final report attesting that all work they inspected and all testing and test reports they reviewed were completed in accordance with the approved construction documents and that deficiencies identified were satisfactorily corrected. The Contractor shall submit a combined final report containing the signed final reports of all the special inspectors. The Contractor shall sign the combined final report attesting that all final reports of special inspectors that performed work to comply with these construction documents are contained therein, and that the Contractor has reviewed and approved all of the individual inspector's final reports.

-- End of Section --

SECTION 01501

TEMPORARY CONSTRUCTION FACILITIES AT FORT GREELY

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Site and Housing Plan; GA.

The contractor shall obtain approval of the site plan prior to start of construction to minimize conflict with the existing GMD PC site planning process.

1.3 SITE AND HOUSING PLAN

The Contractor shall prepare an off-site plan indicating the proposed location and dimensions of any area to be used by the Contractor, the types, layout and number of housing units to be used, and avenues of ingress/egress. Contractor shall limit the number of trailers and/or storage facilities brought on site. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The contractor shall coordinate the location, layout and utility arrangements with the mayor of Delta Junction including the removal of the camp at the end of construction. The submittal to the Government shall include certification of approval from the mayor of Delta Junction.

1.4 COORDINATION WITH OTHER CONTRACTORS

The contractor is provided joint use of the borrow pit, water points and other real property items and shall coordinate use ~~with the Site Activation~~

~~Commander on~~through the Contracting Officer at Fort Greely, who will resolve conflicts of use.

1.5 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads within the installation as necessary to maintain traffic. Use of off-installation roads shall be kept to a minimum. Permission from local authorities shall be obtained prior to sustained use of off-installation roads. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the Station. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.5.1 Joint Use of Roads

The contractor will be provided joint use of roads within the project site with the Government and the Prime Contractor. Maintenance of the roads are the responsibility of the Contractor until such time that the real property is formally transferred to the Government by DD 1354. The C~~c~~ontracting Officer, after consulting with the Site Activation Commander on Fort Greely, will coordinate joint use and resolve conflicting use requirements on a case by case basis.

1.5.2 Haul Roads

The Contractor shall construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.5.3 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary

to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.6 BULLETIN BOARD

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

1.7 AVAILABILITY AND USE OF UTILITY SERVICES

Utilities will be made available at no cost for the Contractor's Construction Site, Contractor Operated dining facilities and construction site support on Fort Greely. Contractor shall arrange for and provide its own utilities at facilities off of Fort Greely. Construction Utilities include heat to existing structures, electricity, waste water, and domestic water. The Contractor is responsible for making and maintaining utility connections. The Contractor is responsible for making and maintaining temporary connections in a safe manner approved by the Contracting Officer, as well as for disconnection and removal at the end of the project. The Contractor shall carefully conserve any utilities furnished without charge.

1.7.1 Electricity

Large cyclic loads such as welders, plasma cutters, dehumidifiers, compressors etc. shall be served by Contractor furnished generators(s) and not the Government furnished utilities.

Reasonable quantities of power will be made available to the contractor at no cost through connections on the Cantonment Area. The amount of power made available will be limited by the Installation's capability to produce power at the point made available to the contractor, considering other competing loads. The contractor will be required to provide the DPW, through the Contracting Officer's Representative an estimated daily peak demand and daily consumption for each connection. The DPW will determine if the demand and consumption rate can be met. If power requirements can not be met, the contractor must secure power through its own power generators or through its own direct connection to the local power cooperative. All connections, lines, transformers, etc. needed to extend power from the source to the point needed by the contractor will be the responsibility of the contractor. The DPW will identify a location on the cantonment area for the connection from which power may be drawn. The contractor must use the least costly method of providing power for its work effort and must use power in the most energy efficient manner.

1.7.2 Steam

Steam will be made available to the contractor at no cost only at facilities provided to the contractor (Building 626), where it is currently available.

1.7.3 Potable Water

Reasonable quantities of potable water necessary to support the construction contract work force while on Fort Greely will be made available to the contractor at no cost. The water shall be provided at a building in the cantonment area (Most Likely Building 626). The contractor shall make the necessary modifications to the water system at that facility. A fire hydrant will be designated for use and contractor shall coordinate use with the Contracting Officer's Representative. The contractor may also be provided another location on the cantonment area. Coordination with the local Directorate of Public Works representative to arrange water shut off, tapping of the lines and digging permits are the responsibility of the Contractor working through the Contracting Officer's Representative.

1.7.4 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel, except within the building specifically made available to the contractor.

A dump station (RV Type) is located on the installation and will be made available in season to the contractor at no cost. Non-contractor users will have the priority. The contractor will insure that no material detrimental to the treatment System is deposited. No material will be brought onto Fort Greely from any off-site location.

1.7.5 Waste Water

Waste waters directly derived from construction activities, such as on-site material processing, concrete curing, foundation and concrete clean-up, concrete trucks, forms, etc. shall not be allowed to enter water ways nor be discharged prior to being treated to remove pollutants. Waste water from construction activities shall be disposed off Government property in accordance with all Federal, State, and local laws and regulations.

1.7.6 Telephone

The Contractor shall make arrangements and pay all costs for telephone facilities desired. In addition, the Contractor will provide four (4) lines are available to the QA/QC Office.

The contractor shall arrange with the local telephone service (Alaska Communications) for telephone and data transmission service to the construction site. Commercial telephone line connections are available at the housing area on the south side of the cantonment area. The local telephone service will arrange with the Installation Communications Officer or the 59th Signal Battalion Commander for access to those lines. All

connections, lines, trenches, poles, etc. needed to extend communication from the source to the point needed by the contractor are the responsibility of the contractor. All costs for service will be billed directly to the contractor. The contractor shall have separate billing for lines and service for Government offices in the construction trailers.

1.8 CONTRACTOR'S TEMPORARY ON-SITE FACILITIES

The contractor may be provided Building 626 on the installation and the adjacent hardstand for heated vehicle maintenance and storage and office space by April 2002. The contractor must make its own arrangement for space prior to that date off-post. The contractor may be provided lay-down areas, warehouse space and winter parking area with headbolt heater connections on a case by case basis on the cantonment area. A limited amount of these facilities are available for the contractor's use. The contractor may be provided the fenced lay-down area south of 635 (the old Jacobs storage area), and a warm storage bay (in the NW corner of 601) of approximately 15,000 SF. Contractor must request all real property requirements at least 30 days in advance to the Contracting Officer. Use of real property on the cantonment area is subject to the rules of the Installation, which will be responsible for operation and maintenance of Real Property provided to the Contractor. Modifications to the real property shall be accomplished by the contractor after approval of the work by the Government. The contractor shall not make modifications to the real property provided within the cantonment area without the permission of the Contracting Officer.

1.8.1 Contractor Field Offices

The Contractor shall provide and maintain its own field office facilities within the construction area at a site designated by the Contracting Officer.

1.8.2 Storage Area

The Contractor shall construct a temporary 6 foot high chain link fence around trailers and materials both on- and off-site. The fence shall include plastic strip inserts, colored brown, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. Mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area at the end of each work day.

1.8.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer may designate another or

supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but shall be within the military boundaries. Fencing of materials or equipment will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government, unless already available at the site designated.

1.8.4 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

1.8.5 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

1.8.6 Security Provisions

The Contractor shall provide its own security as required at its temporary on-site facilities and its off-site camp. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of both the temporary off-site and on-site facilities.

1.9 CONSTRUCTION SUPPORT FACILITIES

1.9.1 QA/QC Office

The Contractor shall provide and maintain an on-site QA/QC Office within the construction area at a site designated by the Contracting Officer.

1.9.1.1 Mobile, Trailer-Type

The contractor shall provide Government personnel with a trailer-type mobile office, approximately 800 square feet in floor area, located where directed at the Test Band construction site. The facility shall have space heat, electric light and power, and toilet facilities. The office shall also be furnished with basic office furnishings and two business telephones with answering machines. A lockable mailbox mounted on the surface of the

door shall be provided. At completion of the project, the office shall remain the property of the Contractor and shall be removed from the site. Utilities shall be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer. The trailer shall be securely anchored appropriately to the ground to guard against movement during high winds. The Contractor is responsible for cleaning and maintaining the office in a condition acceptable to the Contracting Officer.

1.9.1.2 New Building

In the event a new building is constructed for the temporary QA/QC office, the Contractor shall prepare a project work request with a description of the proposed project and cost. Cost may not exceed $500,000.00 for this temporary relocatable building. The relocatable building must be removed from the contract site upon notice by the Contracting Officer. Any new building erected for a temporary field office shall be maintained by the Contractor during the life of the contract and upon completion and acceptance of the work shall remain the property of the Contractor and shall be removed from the site. All charges for telephone service for the Government occupied temporary field office shall be borne by the Government, including long distance charges.

1.9.2 Resident Engineer (RE) Office

The Contractor will not be required to provide the RE with an office; the requirement will be met by others.

1.9.3 Construction Contractor Camp Site

The Contractor may provide its own construction camp on a site acceptable to the Contracting Officer. This site, located off-base, will be designated for the use of the construction contractor only. This site will be close to existing water, power, sewer, fire protection and trash collection. The Contractor shall be responsible for obtaining and maintaining its own utilities including connections and payments. The Contractor shall coordinate the location, and requirements of the camp site with the mayor of Delta Junction including the construction, operation, maintenance, complete removal of the camp and the restoration of the site to its original or better state upon completion of the construction work.

1.9.4 Contractor Housing

Contractor housing at the off-site camp shall conform to the latest applicable federal, state and local Building Codes. The building accommodations will be provided with all of the required utility connections that conforms to Alaska's arctic standards. The contractor shall properly maintain all of the buildings during its occupancy. Parking (including head bolt heater plugs for vehicles) adjacent to the buildings will also be provided.

1.9.5 Dining Facilities

The Contractor shall provide dining facilities for its employees.

1.9.6 Guest/Transient Facilities

The Contractor will not be required to provide guest/transient facilities.

1.9.7 Medical

The Government will provide emergency medical response and evacuation. The contractor shall provide all other medical needs as required by EM 385-1-1 and an approved safety plan.

1.9.8 Contractor Furnished Vehicles

Refer to Section 01015 SPECIAL ITEMS.

1.10 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, (i.e. on- and off-site) the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

1.11 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 60 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

1.12 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the area described above. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.13 RESTORATION OF STORAGE AND OTHER AREAS

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

GROUND-BASED MIDCOURSE
DEFENSE PROGRAM

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

-- End of Section --

SECTION 01502

TEMPORARY CONSTRUCTION FACILITIES AT EARECKSON AS (SHEMYA)

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Site Plan; GA.

The contractor shall obtain approval of the site plan prior to start of construction to minimize conflict with the existing site planning process.

1.3 SITE PLAN

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be used by the Contractor, the number of trailers to be used, and avenues of ingress/egress. Contractor shall limit the number of trailers and/or storage facilities brought on island. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified.

1.3.1 Exclusion Areas

Attached at the end of this Section is a map, entitled Contractor Exclusion Areas on Eareckson Air Station, indicating areas reserved for exclusive use by the Government.

1.4 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the Station. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.4.1 Haul Roads

The Contractor shall construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.4.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.5 BULLETIN BOARD

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

1.6 AVAILABILITY AND USE OF UTILITY SERVICES

1.6.1 Payment for Utility Services

The Government will make all reasonably required utilities available to the Contractor from existing outlets and supplies, as specified herein. The Contractor is responsible for making and maintaining temporary connections in a safe manner approved by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

Reasonable amounts of the following utilities are available for the Contractor's use: Water, Sewer, Electricity. Large cyclic loads such as welders, plasma cutters, dehumidifiers, compressors etc. shall be served by Contractor furnished generators(s) and not the Government furnished utilities.

1.6.2 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel.

1.6.3 Telephone

The Contractor shall make arrangements for telephone facilities desired. In addition, the Contractor will ensure four (4) lines are available to the Government Field Office.

1.7 CONTRACTOR'S TEMPORARY ON-SITE FACILITIES

1.7.1 Contractor Field Offices

The Contractor shall provide and maintain its own field office facilities within the construction area at the designated site.

1.7.2 Storage Area

The Contractor shall construct a temporary 6 foot high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored green, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. Mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area at the end of each work day.

1.7.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer will designate another or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but shall be within the military boundaries. Fencing of materials or equipment will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government.

1.7.4 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

1.7.5 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

1.7.6 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office.

1.8 CONSTRUCTION SUPPORT FACILITIES

1.8.1 QA/QC Office

The Contractor shall provide and maintain an on-site QA/QC Office within the construction area at the designated site.

1.8.1.1 Mobile, Trailer-Type

The contractor shall provide Government personnel with a trailer-type mobile office, approximately 800 square feet in floor area, located where directed at the construction site. The facility shall have space heat, electric light and power, and toilet facilities. The office shall also be furnished with basic office furnishings and two business telephones with answering machines. A lockable mailbox mounted on the surface of the door

shall be provided. At completion of the project, the office shall remain the property of the Contractor and shall be removed from the site. Utilities shall be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer. The trailer shall be securely anchored appropriately to the ground to guard against movement during high winds. The Contractor is responsible for cleaning and maintaining the office in a condition acceptable to the Contracting Officer.

1.8.1.2 New Building

In the event a new building is constructed for the QA/QC field office, it shall be a minimum 12 feet in width, 16 feet in length and have a minimum of 7.5 feet headroom. It shall be equipped with approved electrical wiring, at least one double convenience outlet and the required switches and fuses to provide 110-120 volt power. It shall be provided with a work table with stool, desk with chair, two additional chairs, and one legal size file cabinet that can be locked. The building shall be waterproof, shall be supplied with heater, shall have a minimum of two doors, electric lights, a telephone, a battery operated smoke detector alarm, a sufficient number of adjustable windows for adequate light and ventilation, and a supply of approved drinking water. Approved sanitary facilities shall be furnished. The windows and doors shall be screened and the doors provided with dead bolt type locking devices or a padlock and heavy duty hasp bolted to the door. Door hinge pins shall be non-removable. The windows shall be arranged to open and to be securely fastened from the inside. Glass panels in windows shall be protected by bars or heavy mesh screens to prevent easy access to the building through these panels. In warm weather, air conditioning capable of maintaining the office at 50 percent relative humidity and a room temperature 20 degrees F below the outside temperature when the outside temperature is 95 degrees F, shall be furnished. Any new building erected for a temporary field office shall be maintained by the Contractor during the life of the contract and upon completion and acceptance of the work shall become the property of the Contractor and shall be removed from the site.

1.8.2 Resident Engineer (RE) Office

Resident Office/Administrative support for the Construction Contract shall be provided by the Contractor as detailed below. Adequate physical security, mens/womens restrooms and parking shall also be provided.

a. Four private offices and 11 modular offices for a total of 1820 square feet.

b. Two offices at 100 square feet each.

c. One conference room at 250 square feet.

d. One conference room at 150 square feet.

e. One private office at 200 square feet.

f. Three private offices at 150 square feet each.

g. Nine modular offices at 130 square feet each.

h. Two offices at 100 square feet each.

i. One printer/copier room at 120 square feet.

j. One supply room at 120 square feet.

k. One records/files/drawing storage and review safe area at 750 square feet.

g. One break area at 100 square feet.

1.8.3 Utilities

Utilities will be provided for the construction site support. Utilities include, electricity, waste water, and domestic water. The Contractor is responsible for making and maintaining utility connections.

1.8.4 Communications

Communications support for the Resident Engineer's Office, housing and other related facilities in the form of voice, modem and video telephone (Class A lines, now DSN) will be provided.

1.8.5 Automation

Automation support to install, relocate and maintain LAN systems for the Resident Engineer's Office as well as for other contractors on-site shall be provided by the construction contractor.

1.8.6 Furnishings

Furnishings, including appliances in the break area, for the Resident Engineer's Office shall be provided by the Contractor.

1.8.7 Medical

The Government will provide emergency medical response and evacuation. The contractor shall provide all other medical needs as required by EM 385-1-1 and an approved safety plan.

1.8.8 Operations and Maintenance of Facilities

Operations and maintenance of all facilities in this construction contract shall be the responsibility of the Contractor unless specifically exempted.

1.9 CONTRACTOR HOUSING

Building 598 will be available to house contractor personnel during construction. The building contains 222 single rooms in a one plus one configuration, providing a shared toilet for every two dormitory rooms, 130 will be available for use by the contractor. The rooms are bare with no furnishings or amenities. The contractor shall provide necessary

furnishings and items for personnel comfort. The contractor shall also provide housekeeping services for the portions of Building 598 occupied by their personnel to a level that complies with Eareckson Air Station standards.

1.9.1 Meals

The Government will provide 3 meals per day at the approved JTR rate for all personnel at the dining facility in Building 600.

1.10 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

1.11 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 60 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

1.12 CLEANUP AND PROJECTILE CONTROL

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. The areas adjacent to the radome shall be policed daily for unsecured objects that could become airborne during adverse weather conditions. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the area described above. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.13 RESTORATION OF STORAGE AND OTHER AREAS

Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

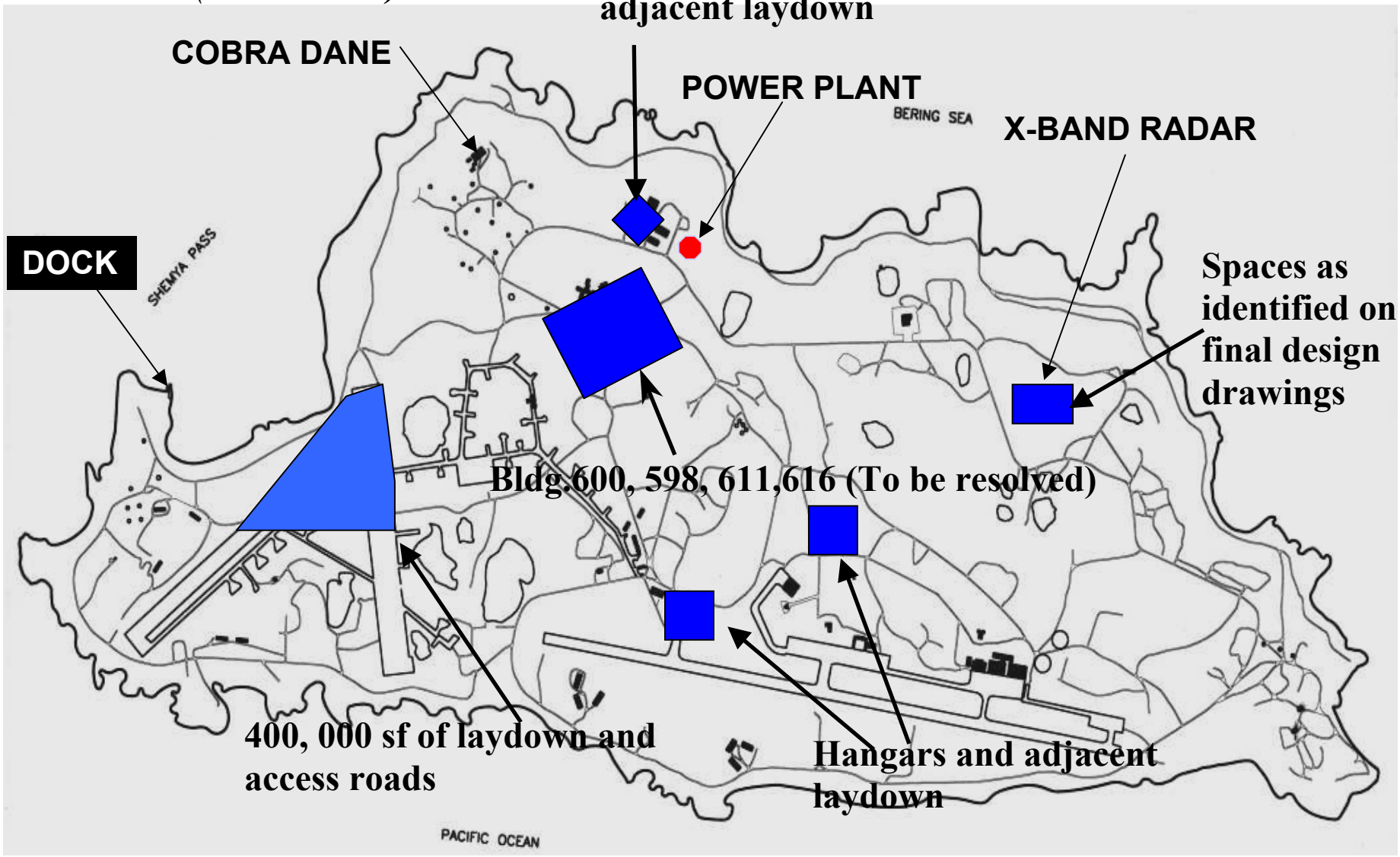
PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

-- End of Section --

Contractor Exclusion Areas on Eareckson Air Station

Note: 5,000 sf of laydown adjacent to each IDT (location TBD)



SECTION 01581

PROJECT MARKER

PART 1 GENERAL

1.1 PROJECT MARKER

The project marker shall consist of one sign. The sign shall conform to the requirements shown on attached Drawings 40-05-12 and 40-05-12 Version 2 and the requirements specified herein. Both sides of the sign shall conform to the format on the referenced marker.

1.2 PAYMENT

No separate payment will be made for the project sign. Costs shall be considered incidental to and included in the contract price.

PART 2 PRODUCTS

2.1 MATERIALS

The panel shall be 16 gage galvanized steel sheets. Posts, rails and trim shall be wood. Paint shall be exterior type water base paint. Nails and tacks shall be galvanized.

2.2 SIZE

The sign panel shall be a minimum of 12 feet long between outer posts and a minimum of 5 feet high between rails. Posts shall be of such length that the top of the project marker will be located a minimum of 8 feet above ground.

2.3 FINISH

Both sides of the sign shall be painted and lettered. Letters shall be black and background shall be white. Posts and rails shall be painted white. Letters shall be upper case block type for all lettering, except that names of major sub-contractors may be upper and lower case.

2.4 DECAL

Two decals of the "Engineer Castle," 12 inches by 8-1/2 inches in size each, and the electronic files for the other two emblems will be furnished to the Contractor by the Contracting Officer. One decal shall be applied to each side of the sign where indicated.

PART 3 EXECUTION

3.1 INSTALLATION

Posts shall be installed in a manner which provides a firm foundation for the Project Marker. The sign shall be situated to provide an unobstructed view from the access road or access area to be determined by the Contracting Officer.

3.2 MAINTENANCE

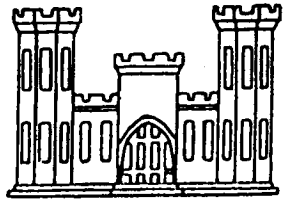
The sign shall be maintained in excellent condition throughout the life of the project. Upon completion of work, the Contractor shall remove the sign.

3.3 ATTACHMENTS

Drawing Nos. 40-05-12 and 40-05-12, Version 2

PROJECT NAME

U. S. ARMY



CORPS OF ENGINEERS

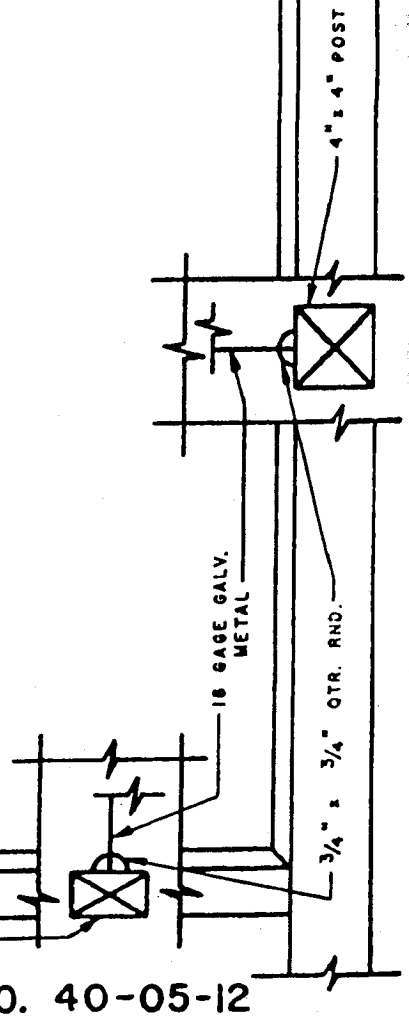
PACIFIC OCEAN DIVISION, ALASKA DISTRICT

CONTRACT NUMBER

PRIME CONTRACTOR

MAJOR SUBCONTRACTORS

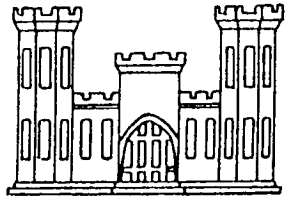
NOTES:
1. ALL LETTERS TO BE BLACK ON WHITE FIELD.
2. ENGINEER CASTLE DECAL TO BE FURNISHED BY CONTRACTING OFFICER.



DWG. NO. 40-05-12

PROJECT NAME

U. S. ARMY



CORPS OF ENGINEERS

PACIFIC OCEAN DIVISION, ALASKA DISTRICT

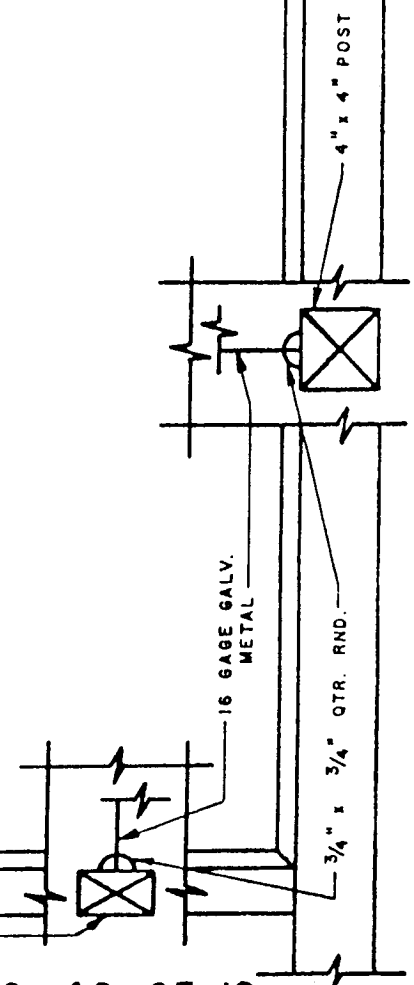
IN COOPERATION WITH

CONTRACT NUMBER

PRIME CONTRACTOR

MAJOR SUBCONTRACTORS

NOTES:
1. ALL LETTERS TO BE BLACK ON WHITE FIELD.
2. ENGINEER CASTLE DECAL TO BE FURNISHED BY CONTRACTING OFFICER.



DWG. NO. 40-05-12

Version 2

-- End of Section --

SECTION 01581

SECTION 01660

FACILITY COMMISSIONING

PART 1 GENERAL

1.1 SUMMARY

This specification covers the contractual requirements for facility pre-functional checkout as well as facility system functional testing of Ground-based Midcourse Defense (GMD) System Testbed Facilities at Fort Greely, Alaska; and In-Flight Interceptor Communications Systems (IFICS) Data Terminals(IDTs) and Defense Secure Communication Systems (DSCS) facilities at Fort Greely, Alaska and Eareckson Air Station (AS), Alaska.

1.2 DEFINITIONS

1.2.1 Commissioning

Systematic process of assuring by verification and documentation, from the design phase to a minimum of one year after construction completion, that all building facility systems perform interactively in accordance with the design documentation and intent, and in accordance with the Prime's operational needs, including preparation of facility operation and maintenance personnel.

1.2.2 Verification

Verification can be accomplished by testing, inspection, demonstration and analysis. The Government's Commissioning Authority (Prime-Boeing) will specify the type of method for each system.

1.3 PROCESSES

The section identifies the following commissioning processes:

a. Start up and testing of facility equipment and systems.

b. Identification and documentation of equipment and system deficiencies and failures.

c. Corrective actions and acceptance of corrected equipment and systems.

d. Facility equipment and systems operation and maintenance training. (Reference Sections 01770 OPERATION AND MAINTENANCE DATA and 01780 CLOSEOUT SUBMITTALS)

e. Facility Operation and Maintenance manuals and training material. (Reference Section 01770 OPERATION AND MAINTENANCE DATA and 01780 CLOSEOUT SUBMITTALS)

All requests for commissioning submittals, lists, schedules, etc. shall be submitted directly to the Contracting Officer Representative (COR) in accordance with Section 01330 SUBMITTAL PROCEDURES.

1.4 COMMISSIONING TEAM

The Commissioning Team Members are defined in this section as:

a. Government's Facility Representative - Joint Program Office (JPO)

b. Government's System Representative - Prime (Boeing)

c. Government's Operations & Maintenance Representative - Prime (Boeing)

d. Design Engineers - United States Army Corps of Engineers (USACE)

e. Contractors - USACE Construction Contractor and subcontractors

f. Government's Commissioning Authority - Prime (Boeing)

1.5 SYSTEM DESCRIPTION

The types of systems to be commissioned are listed below, with specific systems listed in the matrix at the end of this section. This list is dynamic and will be adjusted as facilities are added to the contract documents. This is a representative list of the detailed list and is non-inclusive. The final Systems to be Commissioned list will be determined at final design (100% design review).

a. HVAC Systems
b. Plumbing Systems
c. Fire Detection and Protection
d. Communications System (Non-Tactical)
e. Electrical/UPS/Power Distribution
~~k~~f. High Altitude Electromagnetic Pulse (HEMP)
~~l~~g. Monitors/Controls/Alarms (SCMS)
~~n~~h. Facility Specific
~~o~~i. System Common
~~u~~k. Security (Physical)

1.6 SUBMITTALS

Government approval is required for all submittals in this section. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES except as follows:

An additional copy of submittals associated with this section will be provided to the Contracting Officer for forwarding to the Commissioning Authority.

SD-07 Schedules

Commissioning Activities; GA

Equipment Start-up and Energization; GA

Facility Pre-functional Checklist Completion Schedule; GA

Contractor shall submit facility pre-functional checklist (PFC) completion schedules to Commissioning Authority and Contracting Officer Representative at least sixty (60) days prior to the start of PFC testing for each facility.

Facility Functional Performance Testing Schedule; GA

Contractor shall submit facility functional performance testing (FPT) schedules to Commissioning Authority and Contracting Officer Representative at least sixty (60) days prior to the start of FPT testing for each facility.

Factory Inspections and Tests Schedule; GA

Contractor shall submit schedule of all critical factory inspections and tests to the Commissioning Authority and Contracting Officer Representative thirty (30) days prior to the beginning of the tests. Commissioning Authority shall reserve the right to witness factory inspections and tests.

SD-08 Statements

Construction Contractor Commissioning Team Representatives; GA

USACE Construction Contractor shall submit the name of person(s) for the following Commissioning Representative positions within (2) weeks of contract award.

a. Commissioning Coordination Supervisor. The USACE Construction Contractor shall assign a Commissioning Coordination Supervisor for each site location with five (5) years of experience with the coordination of disciplines of construction.

b. Commissioning Subcontractor Representative. Each contractor shall assign a person responsible for communications with the USACE Construction Contractor's Commissioning Coordination Supervisor.

The USACE Construction Contractor shall submit the following information for each assigned Commissioning Representative: Company name, Name of Person, Title, Years of Experience, Phone Number, Pager Number, Fax Number, and E-Mail Address.

Completed Facility Pre-functional Checklists; GA

The Contractor shall submit completed Facility Pre-functional Checklists to Contracting Officer's Representative and Commissioning Authority. Facilitysystem functional performance testing shall not commence until the specified system has completed start-up; undergone test, adjust and balance (TAB); and is documented and ready for FPT.

SD-09 Reports

Administrative Documents

The Contractor shall submit a copy of Construction Meeting Minutes, completed Requests for Information (RFI), Architectural Supplemental Instructions (ASI), Proposal Requests (PR) and finalized Change Orders (CO) to Commissioning Authority and Contracting Officer Representative.

Contractor Test Data and Reports; GA

Submit Contractor required test data and reports to Commissioning Authority concurrent with Contracting Officer's Representative for approval within one (1) week of completion of work and prior to commencement of system functional performance tests.

Contractor Review of Facility Functional Performance Testing; GA

The Contractor shall review and provide comments on facility functional performance test procedures to the Commissioning Authority and Contracting Officer Representative within one (1) week of receipt of documents from the Commissioning Authority.

Factory Test Data; GA

The Contractor shall provide ALL Factory Test data to the Commissioning Authority and Contracting Officer Representative.

The Contractor shall submit Contractor required test data including Test and Balance (TAB) data and reports to Commissioning Authority concurrent with Contracting Officer's Representative for review and approval within one (1) week of completion of work and prior to commencement of Facility Functional Performance Tests.

SD-19 Operation and Maintenance Manuals

Facility Operation and Maintenance Manuals for Commissioning Review; GA

Contractor shall submit Facility Operation and Maintenance manuals and materials to the Contracting Officer's Representative and Commissioning Authority for review and approval. Submit ninety (90) days before scheduled testing. Reference Section 01770 OPERATION AND MAINTENANCE DATA and 01780 CLOSEOUT SUBMITTALS.

Facility O&M Training Plan; GA

The Facility O&M Training Report will be submitted to the Contractor by the Commissioning Authority. The Contractor shall submit a facility O&M training plan, which includes individual session training plans, to Contracting Officer's Representative and Commissioning Authority for approval no later than ninety (90) days before start of scheduled training. Reference Section 01770 OPERATION AND MAINTENANCE DATA and 01780 CLOSEOUT

SUBMITTALS.

1.7 FACILITY OPERATION AND MAINTENANCE MANUALS

1.7.1 Operation, Maintenance and Training

The requirements of Section 01770 OPERATION AND MAINTENANCE DATA will govern.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Testing and Adjusting

The Contractor shall provide tools, services, consumables and instruments required to test and adjust equipment and to verify compliance with facility design documents.

2.1.2 Training

The Contractor shall provide tools, services, consumables and instruments required for operation and maintenance training on equipment and systems.

PART 3 EXECUTION

3.1 COORDINATION

3.1.1 Commissioning Officers

The Contractor shall assign Commissioning Representatives: Commissioning Coordination Supervisor(s) and Commissioning Subcontractor Representative(s). Commissioning Coordination Supervisor's responsibilities include:

- Coordination ~~m~~Meetings.
- Planning.
- Scheduling.
- Documentation.
- Communication with Government's Commissioning Authority.
- Corrective actions.

Commissioning Subcontractor Representative responsibilities include:

- Coordination ~~m~~Meetings.
- Planning.
- Scheduling.
- Communication with Commissioning Coordination Supervisor.
- Review of Equipment and Facility Pre-Functional Checklists provided by the Commissioning Authority.
- Review of final Facility Functional Performance Test Procedures.
- Attendance during Facility Functional Performance Tests.
- Corrective ~~a~~Actions.
- Specified facility operation and maintenance training.

3.1.2 Commissioning Activities

Contractor shall include commissioning activities in the master schedule. The Contractor shall incorporate all commissioning milestones into the Master Construction Schedule. Milestones shall at a minimum include commissioning meetings, reviews, submittal requirement dates (including shop drawing reviews and approval milestones), testing periods including facility pre-functional ~~checks, TAB~~checklists and facility functional performance testing~~, etc~~.

3.2 TRAINING

3.2.1 Operation and Maintenance Training

The Contractor shall coordinate operation and maintenance training activities through the Contracting Officer's Representative and Commissioning Authority as specified in Section 01770 OPERATION AND MAINTENANCE DATA, Section 01780 CLOSEOUT SUBMITTALS and individual sections.

3.2.2 Hardware and Major Components Training

The Contractor shall provide training for facility operation and maintenance hardware and major components as specified in Section 01770 OPERATION AND MAINTENANCE DATA, Section 01780 CLOSEOUT SUBMITTALS and individual sections. Updated as-built drawings shall be used for this facility O&M training.

3.2.3 Facility O&M Training Plan

Contractor shall provide Facility Training Plan for the following, but not limited to, Training Sessions:

SECTION	TITLE
16404:	Secondary Unit Substations and Cast Coil Transformers
16410:	Automatic Transfer Switch and By-pass / Isolation
16415:	Electrical Work, Interior
16528:	Exterior Lighting
16710:	Premises Distribution System
16711:	Telephone System
16768:	Fiber Optic Data Transmission
16770:	Public Address System
16781:	Master Antenna Television System
16935:	Site Control and Monitoring System (SCMS)
16999:	Circuit and Raceway Schedule

Systems anticipated to require training plans are listed below as follows: (Those without technical specification section numbers will be finalized at the 100% design stage.)

HVAC Systems
Electrical/UPS/Power Distribution Systems
Plumbing Systems
Security (Physical) Systems
Monitors/Controls/Alarms (SCMS) Systems
Fire Detection and Prevention Systems
High Altitude Electro-Magnetic Pulse (HEMO) Testing
Communications (Non-Tactical) Systems
Facility Specific Systems
System Common Systems

3.2.4 Commissioning Authority Approval

The Commissioning Authority will review and provide comment on the facility training plan and obtain written acceptance of the training session from the COR. The Commissioning Authority will coordinate the approved submitted training plans.

3.2.5 Training Session Documentation

The Contractor shall document performance of the training session. Reference Section 01770 OPERATION AND MAINTENANCE DATA and 01780 CLOSEOUT SUBMITTALS.

3.3 EQUIPMENT START-UP AND ENERGIZATION

3.3.1 Start-Ups

The Contractor shall inform the Commissioning Authority two (2) weeks in advance of the start-up or equipment energization schedule for equipment. The Commissioning Authority reserves the right to witness the performance of any or all start-up/initialization/~~energization~~energizing/shutdown procedures.

3.3.2 Start-Up Checklists

Contractor shall complete all vendor start-up checklists, record all setpoints, and submit to the Contracting Officer's Representative and Commissioning Authority with Facility Pre-Functional Checklists.

3.4 CONTRACTOR TEST DATA AND REPORTS

3.4.1 List and Schedule of Specified Tests

Subcontractor/installers shall forward to the Commissioning Authority through the Commissioning Coordination Supervisor a list and schedule of specified contractor tests. The tests shall include at a minimum the tests specified in the following sections:

Section	Title
11212:	Pumps: Water, Vertical Turbine
13095:	HEMP Protection Subsystem
13206:	Ground Storage Reservoir

Section	Title
13851:	Fire Detection and Alarm System
13920:	Fire Pumps
13930:	Wet Pipe Sprinkler System
13935:	Dry Pipe Sprinkler System
13955:	Vehicle Barriers
15400:	Plumbing, General Purpose
15569:	Low Temperature Heating Water System
15650:	Central Refrigerated Air Conditioning
15895:	Air Supply, Distribution, Ventilation, and Exhaust
15990:	Testing, Adjusting, and Balancing
16070:	Seismic Protection for Electrical Protection
16265:	Uninterruptible Power Supply
16311:	Sub Station
16375:	Electrical Distribution System, Underground
16403:	Motor Control Centers
16404:	Secondary Unit Substations and Cast Coil Transformers
16410:	Automatic Transfer Switch and By-pass / Isolation
16415:	Electrical Work, Interior
16528:	Exterior Lighting
16710:	Premises Distribution System
16711:	Telephone System
16768:	Fiber Optic Data Transmission
16770:	Public Address System
16781:	Master Antenna Television System
16935:	Site Control and Monitoring System (SCMS)
16999:	Circuit and Raceway Schedule

The following titles without associated Section numbers will be reconciled with technical specification section numbers at the 100% design stage

HVAC subsystems and major component tests
Electrical/UPS/power distribution subsystems and major component tests
Plumbing subsystems and major component tests
Security subsystems and major component tests
Monitors/controls/alarms (SCMS) subsystem and major component tests
Fire detection and prevention subsystems and major component tests
Communications (non-tactical) subsystems and major component tests
Facility specific subsystems and major component tests
System common subsystems and major component tests

Additional test data and reports should include the following:

All sensor and test equipment calibration documentation
All start-up and shut-down tests
All test, adjust and balance (TAB) tests

a. Unless specified otherwise, the Contractor shall provide a minimum two (2) weeks notice to the Commissioning Authority prior to the start of specified Contractor's tests.

b. The Contractor shall submit Contractors' test reports to the Commissioning Authority and Contracting Officer's Representative within one (1) week of the successful completion of each test. Contractor Test Report submittal forms are attached.

3.5 SYSTEM CHECKOUT (PRE-FUNCTIONAL CHECKS)

3.5.1 System Check-Out

Prior to the scheduled start of Facility Functional Performance Testing, the Contractor shall check-out systems to confirm readiness for testing. The Commissioning Authority reserves the right to witness critical factory testing.

In addition to verifying that all equipment and associated hardware is installed properly, the Contractor shall perform and document sensor calibration or provide documentation verifying manufacturer's performance of calibration two (2) weeks prior to functional performance testing. A sensor is defined as any device, which measures a system parameter for control purposes or for monitoring the system performance. The Commissioning Authority reserves the right to witness sensor calibration procedures.

3.6 FACILITY FUNCTIONAL PERFORMANCE TESTING

3.6.1 Master Scheduling Process

The Contractor shall provide input into the master scheduling process with regards to timing and duration of the Facility Functional Performance Testing. The master scheduling process will include the designation of contractor personnel required to perform the functional performance test procedures and coordination of any deferred testing due to season, tenant fit-out schedule, etc.

3.6.2 Contractor Review and Comment

The Contractor shall review and comment on the final detailed functional performance test procedures developed by the Commissioning Authority based on the approved system shop drawings and submittals. The Contractor shall provide feedback within one (1) week of receipt, as to the efficiency of the procedures and possible alternate approaches to achieving the same

results. Updated as-built drawings shall be used for ~~operation and maintenance training and~~Facility Functional Performance Testing.

3.6.3 Facility Functional Performance Testing

The Contractor shall provide personnel and equipment as required to perform the functional performance test procedures under the direction of the Commissioning Authority. Example Facility Functional Performance Test (FPT) procedures establishing level of detail and acceptance criteria are attached at the end of this specification. Preliminary Functional Performance Test procedures will be developed at final design. Final Functional Performance Test procedures will be distributed to the contractors after the review and approval of the shop drawing submittals.

3.6.4 Performance of Functional Tests

Every effort will be made to expedite the testing process and minimize unnecessary delays, while not compromising the integrity of the procedures.

3.6.5 Record of Results

The Commissioning Authority will record the results of the Facility Functional Performance Test on the procedure or test form. All deficiencies shall be noted and reported to the Contracting Officer Representative and USACE Construction Contractor on a Corrective Action Report Form. An example of the Corrective Action Report is attached.

3.7 CORRECTIVE ACTIONS

3.7.1 Resolution of Deficiencies

Contractor shall perform corrective actions for resolution of deficiencies found during:

Contractor equipment installation and testing
Test and balance, start-up and shut-down testing
Facility Pre-Functional Checks (System Checkout)
Facility Functional Performance Testingg

3.7.2 Outstanding Discrepancies

The Contractor shall respond in writing to the Commissioning Authority and Contracting Officer Representative at least as often as commissioning meetings are being scheduled concerning the status of each apparent outstanding discrepancy identified during the commissioning. Discussion shall cover explanations of any disagreements and proposals for their resolution.

3.7.3 Corrections of Minor Deficiencies

Corrections of minor deficiencies identified may be made during the tests at the discretion of the Commissioning Authority and concurrence of QA. In such cases the deficiency and resolution will be documented on the procedure form.

3.7.4 Deficiencies

During testing, anyone finding deficiencies may document the deficiencies on an attached Corrective Action Form within one working day of discovery. The deficiency then shall be forwarded to the Commissioning Authority and Contracting Officer Representative.

3.7.4.1 Deficiency Identification Process:

a. Date

b. Description of deficiency

c. Enter deficiency into Master Corrective Action Log

d. Give original form to the Contracting Officer and a copy to the Commissioning Coordination Supervisor

e. Distribute copies to:

1. USACE Construction Contractor
2. Contracting Officer Representative
3. Commissioning Authority

3.7.4.2 Corrective Action Direction (by USACE Construction Contractor)

a. Obtain the original form

b. Date of direction

c. Description of corrective action required

d. Name of person issuing the direction

e. Give the original form to the Contracting Officer and a copy to the subcontractor/installer who will perform the corrective action.

f. Distribute copies to:

1. Commissioning Coordination Supervisor
2. Contracting Officer Representative
3. Commissioning Authority

3.7.4.3 Subcontractor / Installer Corrective Action Completed (by Contractor / Subcontractor / Installer)

a. Obtain the original form

b. Date of correction

c. Description of final equipment status or corrective action performed

d. Name of person performing the work

e. Subcontractor submit the original form to the Construction Contractor Commissioning Supervisor

f. USACE Construction Contractor approves and submits original form to the Contracting Officer with a copy to the Commissioning Authority.

g. Distribute copies to:

1. Commissioning Coordination Supervisor
2. Contracting Officer Representative

3.7.4.4 Verification of Corrective Action Completion (by Commissioning Authority)

a. Date of retest
b. Status description; resolved or more work required
c. Name(s) of person(s) performing verification
d. Enter resolution into Master Corrective Action Log
e. Distribute copies to:

1. Commissioning Coordination Supervisor
2. Contracting Officer Representative

3.8 COMMISSIONING DOCUMENTATION

3.8.1 Corrective Action Report Form (attached at the end of this Section)

3.8.2 Systems To Be Commissioned Matrix

The following commissioning documentation examples demonstrate detail and rigor of Facility Pre-Functional Checklists and Functional Performance Tests (attached at the end of this Section). Preliminary Checklists and Functional Performance Tests will be developed for the final design. Final Checklists and Functional Performance Tests will be distributed after the review and approval of the shop drawing submittals. When this list is finalized a separate matrix/table will be created for each facility. (Note: Acronyms may be subject to change.)

3.8.3 Other Commissioning Documentation

~~The following commissioning documentation examples demonstrate detail and rigor of Facility Pre-Functional Checklists and Functional Performance Tests.~~ Preliminary Checklists and Functional Performance Tests are included to this package as Attachment 10a and b to Section 00800. ~~Final Checklists and Functional Performance Tests will be distributed to the contractors after the review and approval of the shop drawing submittals.~~

-- End of Section --

Facilities for Ground-based Midcourse Defense (GMD) System Testbed CORRECTIVE ACTION REPORT (CAR)	Deficiency No.

Deficiency noted during which evolution:
Contractor testing, test and balance, system checkout, functional performance testing, other:

System/Equipment Identification:

Description of deficiency:

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Contractor Cx Coordination Supervisor and a copy to: COR, Design Engineers and the Government's Facility Rep.

Corrective Action Direction (by CM):

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Subcontractor and a copy to: COR, Cx Authority, Design Engineers and the Government's Facility Rep

Corrective Action Completed Satisfactorily (by subcontractor)
☐ Yes ☐ No

Comments on final equipment status or performance of corrective action:

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Contractor Cx Coordination Supervisor for submittal to the Cx Authority with copies to: COR, Design Engineers and the Government's Facility Rep

Verification of Corrective Action Completion (by CC)
☐ Yes ☐ No

Comments:

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Cx Authority and a copy to: Cx Coordination Supervisor, COR, Design Engineers and the Government's Facility Rep

3.8.2.1 Systems to be Commissioned Matrices

Systems to be Commissioned Matrix

This list will be Finalized at 100 % Design and a separate matrix/table will be created for each facility.
(Note: Acronyms may be subject to change)

Preliminary PFC & FPT included in 1-28-02 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control	Readiness and	Interceptor	Water Supply
Black & Veatch Building No.			**4**	**5**	**7**	**10**
HVAC Systems						
X	FPT Computer Room Unit: CRU-0501 AND CRU-0502			X		
X		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0502 and Carbon Monoxide (CO) Monitor			X		
X		PFC Exhaust Fan: EF-0502 and Carbon Monoxide (CO) Monitor		X		
X	FPT Computer Room Unit: CRU-0503 AND CRU-0504			X		
		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0503 and Carbon Monoxide (CO) Monitor			X		
X		PFC Exhaust Fan: EF-0503 and Carbon Monoxide (CO) Monitor		X		
X	FPT Computer Room Unit: CRU-0505 AND CRU-0506			X		
		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0506			X		
X		PFC Exhaust Fan: EF 0506		X		
X	FPT Computer Room Unit: CRU-0507, CRU-0508 AND CRU-0509			X		
		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0507			X		
X		PFC Exhaust Fan: EF 0507		X		
X	FPT Computer Room Unit: CRU-0510 AND CRU-0511			X		
		PFC Computer Room Unit		X		
X	FPT Computer Room Unit: CRU-0512			X		
		PFC Computer Room Unit		X		
X	FPT AHU-0501, RF-0501, EF-0501			X		
X	FPT Duct Heating Coil: DHC-0501			X		
X	FPT Duct Heating Coil: DHC-0502, DHC-0503			X		
X		PFC AHU-0501, RF-0501, EF-0501, DHC-0501, DHC-0502, DHC-0503		X		
X	FPT AHU-0502 and AHU-0503			X		
X		PFC AHU-0502, AHU-0503		X		
X	FPT AHU-0504 and EF-0504			X		
X		PFC AHU-0504, EF-0504, & MOD-0571		X		
	FPT Variable Frequency Drives			X		
		PFC Variable Frequency Drives		X		
X	FPT Cabinet Unit HW Heaters		X	X	X	X
X		PFC HW Cabinet Unit Heater local control	X	X	X	X
	FPT Electric Unit Heaters				X	

Preliminary PFC & FPT included in 1-28-02 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control	Readiness and	Interceptor	Water Supply
		PFC Electric Unit Heater local control			X	
X	FPT HW Finned Tuned Radiation		X	X		
X		PFC HW Finned Tube Radiation	X	X		
	FPT AHU-0401		X			
		PFC AHU-0401	X			
	FPT Exhaust Fan and Relief Damper: EF-401 & EF-402		X			
		PFC Exhaust Fan and Relief Damper	X			
	FPT AHU-0701				X	
		PFC AHU-0701			X	
X	FPT Fan Coil Unit			X		
X		PFC Fan Coil Unit		X		
X	FPT Pressure Differential Reducer Control Valve		X	X	X	X
X		PFC Pressure Differential Reducer Control Valve	X	X	X	X
	FPT Exhaust Fan: EF-1001					X
		PFC Exhaust Fan Clg&Vent System				X
	FPT Heat Exchanger					X
		PFC Heat Exchanger				X
	FPT Chilled Water System			X		X
		PFC Chilled Water System		X		X
Electrical/UPS/Power Distribution						
X	FPT Secondary Unit Substation			X		
X		PFC Unit Substation		X		
	FPT Liquid-Filled Transformer				X	
		PFC Liquid-Filled Transformer			X	
	FPT Load Interrupter Switch				X	
		PFC Load Interrupter Switch			X	
	FPT Low-Voltage Switchgear				X	
		PFC Switchgear			X	
X	FPT LVDO Circuit Breakers			X	X	
		PFC LVDO Circuit Breakers		X	X	
	FPT Safety Switch		X			
		PFC Safety Switch	X			
X	FPT Dry-Type Transformer		X	X	X	X
X		PFC Dry-Type Transformer	X	X	X	X
X	FPT Automatic Transfer Switch			X		
X		PFC Automatic Transfer Switch		X		
	FPT Motor Control Center					X
		PFC Motor Control Center				X
X	FPT On-Line UPS			X		
		PFC On-Line UPS		X		

Preliminary PFC & FPT included in 1-28-02 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control	Readiness and	Interceptor	Water Supply
X	FPT Panelboard		X	X	X	X
X		PFC Panelboard	X	X	X	X
X	FPT Grounding		X	X	X	X
X		PFC Grounding System	X	X	X	X
X	FPT Power Cables Over 600 V			X	X	
X		PFC Power Cables Over 600 V		X	X	
X	FPT Power Cables Under 600 V		X	X	X	X
X		PFC Power Cables Under 600 V	X	X	X	X
X	FPT Lighting Control Exterior		X	X	X	X
		PFC Lighting Control Exterior	X	X	X	X
Plumbing Systems						
	FPT Hot Water Circulating Pump			X		
	FPT Well Water Pumping System					X
		PFC Well Water Pumping System				X
	FPT Domestic Water Chemical Feed Pumps					X
		PFC Potable Water System				X
		PFC ESEW (Emergency Shower & Eyewash) System				X
	FPT Recirculation Pump RP-1001					X
		PFC Recirculation Pump RP-1001				X
Security (Physical)						
X	FPT Security System		X	X	X	X
		PFC Security System	X	X	X	X
X	FPT Security Cabling		X	X	X	X
		PFC Security Cabling	X	X	X	X
X	FPT Electrical SCMS		X	X	X	X
		PFC Electrical SCMS	X	X	X	X
Monitors/Controls/Alarms						
	FPT Carbon Monoxide Detection System		X			
		PFC Carbon Monoxide Detection System	X			
		PFC Electric Water Heater local control	X			
	FPT Oxygen Depletion Monitor				X	
		PFC Hazardous Gas Monitoring System- with Purge			X	
		PFC Oxygen Gas Monitoring System			X	
Fire Detection and Fire Protection						
X	FPT Fire Alarm System		X	X	X	X
X		PFC Fire Alarm System	X	X	X	X
	FPT Fire Pump Controller/Transfer Switch					X
		PFC Fire Pump Controller				X
	FPT Fire Pump Controller					X

Preliminary PFC & FPT included in 1-28-02 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control	Readiness and	Interceptor	Water Supply
		PFC Fire Water Pumping System				X
	FPT Fire Water Freeze Protection					X
		PFC Fire Water Tank Freeze Protection System				X
HEMP						
	FPT High-Altitude Electromagnetic Pulse (HEMP)			X		
		PFC HEMP		X		
Communications System (Non-Tactical)						
X	FPT Public Address System		X	X	X	X
		PFC Public Address System	X	X	X	X
X	FPT Fiber Optic		X	X	X	X
		PFC Fiber Optic	X	X	X	X
X	FPT Communications		X	X	X	X
		PFC Communications	X	X	X	X
Other						
	FPT WSB Pump Room Overhead Rolling Door					X
		PFC WSB Pump Room Overhead Rolling Door				X

3.8.2.1.Facility Pre-Functional Checklists –

(Examples included in specification attachment 10 – file Attach10A.pdf)

3.8.2.2.Facility Functional Performance Test Procedures –

(Examples included in specification attachment 10 – file Attach10B.pdf)

Facilities for Ground-based Midcourse Defense (GMD) System Testbed CORRECTIVE ACTION REPORT (CAR)	Deficiency No.

Deficiency noted during which evolution:
Contractor testing, test and balance, system checkout, functional performance testing, other:

System/Equipment Identification:

Description of deficiency:

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Contractor Cx Coordination Supervisor and a copy to: COR, Design Engineers and the Government's Facility Rep.

Corrective Action Direction (by CM):

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Subcontractor and a copy to: COR, Cx Authority, Design Engineers and the Government's Facility Rep

Corrective Action Completed Satisfactorily (by subcontractor)
☐ Yes ☐ No

Comments on final equipment status or performance of corrective action:

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Contractor Cx Coordination Supervisor for submittal to the Cx Authority with copies to: COR, Design Engineers and the Government's Facility Rep

Verification of Corrective Action Completion (by CC)
☐ Yes ☐ No

Comments:

Name:	Company:	Date:

Attach additional pages if necessary, number of attached pages:
Send original to the Cx Authority and a copy to: Cx Coordination Supervisor, COR, Design Engineers and

the Government's Facility Rep

SYSTEMS TO BE COMMISSIONED MATRIX:

Preliminary PFC & FPT included in 1-28-02 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control Building	Readiness and Control Building	Interceptor Storage Building	Water Supply Building
Black & Veatch Building No.			**4**	**5**	**7**	**10**
HVAC Systems						
X	FPT Computer Room Unit: CRU-0501 AND CRU-0502			X		
X		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0502 and Carbon Monoxide (CO) Monitor			X		
X		PFC Exhaust Fan: EF-0502 and Carbon Monoxide (CO) Monitor		X		
X	FPT Computer Room Unit: CRU-0503 AND CRU-0504			X		
		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0503 and Carbon Monoxide (CO) Monitor			X		
X		PFC Exhaust Fan: EF-0503 and Carbon Monoxide (CO) Monitor		X		
X	FPT Computer Room Unit: CRU-0505 AND CRU-0506			X		
		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0506			X		
X		PFC Exhaust Fan: EF 0506		X		
X	FPT Computer Room Unit: CRU-0507, CRU-0508 AND CRU-0509			X		
		PFC Computer Room Unit		X		
X	FPT Exhaust Fan: EF-0507			X		
X		PFC Exhaust Fan: EF 0507		X		
X	FPT Computer Room Unit: CRU-0510 AND CRU-0511			X		
		PFC Computer Room Unit		X		
X	FPT Computer Room Unit: CRU-0512			X		
		PFC Computer Room Unit		X		
X	FPT AHU-0501, RF-0501, EF-0501			X		
X	FPT Duct Heating Coil: DHC-0501			X		
X	FPT Duct Heating Coil: DHC-0502, DHC-0503			X		
X		PFC AHU-0501, RF-0501, EF-0501, DHC-0501, DHC-0502, DHC-0503		X		
X	FPT AHU-0502 and AHU-0503			X		
X		PFC AHU-0502, AHU-0503		X		
X	FPT AHU-0504 and EF-0504			X		
X		PFC AHU-0504, EF-0504, & MOD-0571		X		
	FPT Variable Frequency Drives			X		
		PFC Variable Frequency Drives		X		
X	FPT Cabinet Unit HW Heaters		X	X	X	X
X		PFC HW Cabinet Unit Heater local control	X	X	X	X
	FPT Electric Unit Heaters				X	
		PFC Electric Unit Heater local control			X	
X	FPT HW Finned Tuned Radiation		X	X		
X		PFC HW Finned Tube Radiation	X	X		
	FPT AHU-0401		X			
		PFC AHU-0401	X			
	FPT Exhaust Fan and Relief Damper: EF-401 & EF-402		X			
		PFC Exhaust Fan and Relief Damper	X			
	FPT AHU-0701				X	
		PFC AHU-0701			X	
X	FPT Fan Coil Unit			X		
X		PFC Fan Coil Unit		X		
X	FPT Pressure Differential Reducer Control Valve		X	X	X	X
X		PFC Pressure Differential Reducer Control Valve	X	X	X	X

Preliminary PFC & FPT included in 1-2802 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control Building	Readiness and Control Building	Interceptor Storage Building	Water Supply Building
Black & Veatch Building No.			**4**	**5**	**7**	**10**
HVAC Systems						
	FPT Exhaust Fan: EF-1001					X
		PFC Exhaust Fan Clg&Vent System				X
	FPT Heat Exchanger					X
		PFC Heat Exchanger				X
	FPT Chilled Water System			X		X
		PFC Chilled Water System		X		X
Electrical/UPS/Power Distribution						
X	FPT Secondary Unit Substation			X		
X		PFC Unit Substation		X		
	FPT Liquid-Filled Transformer				X	
		PFC Liquid-Filled Transformer			X	
	FPT Load Interrupter Switch				X	
		PFC Load Interrupter Switch			X	
	FPT Low-Voltage Switchgear				X	
		PFC Switchgear			X	
X	FPT LVDO Circuit Breakers			X	X	
		PFC LVDO Circuit Breakers		X	X	
	FPT Safety Switch		X			
		PFC Safety Switch	X			
X	FPT Dry-Type Transformer		X	X	X	X
X		PFC Dry-Type Transformer	X	X	X	X
X	FPT Automatic Transfer Switch			X		
X		PFC Automatic Transfer Switch		X		
	FPT Motor Control Center					X
		PFC Motor Control Center				X
X	FPT On-Line UPS			X		
		PFC On-Line UPS		X		
X	FPT Panelboard		X	X	X	X
X		PFC Panelboard	X	X	X	X
X	FPT Grounding		X	X	X	X
X		PFC Grounding System	X	X	X	X
X	FPT Power Cables Over 600 V			X	X	
X		PFC Power Cables Over 600 V		X	X	
X	FPT Power Cables Under 600 V		X	X	X	X
X		PFC Power Cables Under 600 V	X	X	X	X
X	FPT Lighting Control Exterior		X	X	X	X
		PFC Lighting Control Exterior	X	X	X	X
Plumbing Systems						
	FPT Hot Water Circulating Pump			X		
	FPT Well Water Pumping System					X
		PFC Well Water Pumping System				X
	FPT Domestic Water Chemical Feed Pumps					X
		PFC Potable Water System				X
		PFC ESEW (Emergency Shower & Eyewash) System				X
	FPT Recirculation Pump RP-1001					X
		PFC Recirculation Pump RP-1001				X

Preliminary PFC & FPT included in 1-2802 RFP	Functional Performance Test Procedures (FPT)	Pre-Functional Checklist (PFC)	Entry Control Building	Readiness and Control Building	Interceptor Storage Building	Water Supply Building
Black & Veatch Building No.			**4**	**5**	**7**	**10**
Security (Physical)						
X	FPT Security System		X	X	X	X
		PFC Security System	X	X	X	X
X	FPT Security Cabling		X	X	X	X
		PFC Security Cabling	X	X	X	X
X	FPT Electrical SCMS		X	X	X	X
		PFC Electrical SCMS	X	X	X	X
Monitors/Controls/Alarms						
	FPT Carbon Monoxide Detection System		X			
		PFC Carbon Monoxide Detection System	X			
		PFC Electric Water Heater local control	X			
	FPT Oxygen Depletion Monitor				X	
		PFC Hazardous Gas Monitoring System- with Purge			X	
		PFC Oxygen Gas Monitoring System			X	
Fire Detection and Fire Protection						
X	FPT Fire Alarm System		X	X	X	X
X		PFC Fire Alarm System	X	X	X	X
	FPT Fire Pump Controller/Transfer Switch					X
		PFC Fire Pump Controller				X
	FPT Fire Pump Controller					X
		PFC Fire Water Pumping System				X
	FPT Fire Water Freeze Protection					X
		PFC Fire Water Tank Freeze Protection System				X
HEMP						
	FPT High-Altitude Electromagnetic Pulse (HEMP)			X		
		PFC HEMP		X		
Communications System (Non-Tactical)						
X	FPT Public Address System		X	X	X	X
		PFC Public Address System	X	X	X	X
X	FPT Fiber Optic		X	X	X	X
		PFC Fiber Optic	X	X	X	X
X	FPT Communications		X	X	X	X
		PFC Communications	X	X	X	X
Other						
	FPT WSB Pump Room Overhead Rolling Door					X
		PFC WSB Pump Room Overhead Rolling Door				X

SECTION 01720

AS-BUILT DRAWINGS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

STATE OF ALASKA ADMINISTRATIVE CODE (AAC)

18 AAC 72	Wastewater Disposal Regulations
18 AAC 80	Drinking Water

TriService CADD/GIS TECHNOLOGY CENTER

TS CADD	(Version 1.8) TriService A/E/C CADD Standards

1.2 REQUIREMENTS

The As-Built drawings shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract drawings and a record of all deviations, modifications or changes from those drawings, however minor, which were incorporated into the work, additional work not appearing on the contract drawings, and changes which were made after final inspection of the contract work. References to amendments (and the location indicators of those amendments) issued by the Government shall be removed from the drawings. The title block on each sheet shall reflect the Contract Number, Contractor Company Name, City, and State. Each sheet shall be labeled "AS-BLT" in a location immediately preceeding the Drawing Number. Facility systems, subsystems and functional components shall be identified by their facility commissioning identifier(Section 01660). The As-Built drawings shall include all major features of the work and all details to the same level as the original contract set of drawings. All changes from the contract drawings, including but not limited to modifications, letters of clarification, changes made during construction, and/or additional information uncovered during construction, shall be accurately and neatly recorded on the As-Built Drawings using the same symbols, terminology, and general quality as the original set of contract drawings. All sheets affected by a change shall be revised. The Invitation Number located below the title block shall remain unchanged. The full size mylar prints specified in paragraph FINAL SUBMITTAL shall be signed by the Prime Contractor or a representative of the Prime Contractor having full contractual authority. The transmittal requirements for the As-built Drawings shall be included in the Contractor's EVMS.

1.3 PRELIMINARY AS-BUILT MARKED PRINTS

The Contractor shall mark up one set of paper prints to show the As-Built conditions. These As-Built marked prints shall be kept current and

available on the jobsite at all times. Changes from the contract plans which are made in the work, or additional information uncovered in the course of construction, shall be accurately and neatly recorded, as they occur, by means of details and notes. No construction work shall be concealed until it has been inspected, approved and recorded. The As-Built marked prints will be jointly inspected for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of the monthly pay estimate. Failure to keep the As-Built marked prints on a current basis shall be sufficient justification to suspend pay estimates. Information to be shown on the drawings shall include, but is not limited to:

a. The location and description of utility lines or other installations of any kind known to exist within the construction area. The locations shall be referenced by including dimensions to permanent features.

b. The location and identification of surface installations within 100 feet of the construction work.

c. The location and dimensions of changes within buildings or structures.

d. Correct grade and alignment of roads, structures or utilities if changes were made from contract plans.

e. Correct elevations if changes were made in site grading.

f. Changes in details of design or additional information obtained from working drawings specified to be prepared or furnished by the Contractor, including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

g. The topography and grades of drainage installed or affected as a part of the project construction.

h. Changes or modifications which result from the final inspection.

1.3.1 Preliminary As-Built CADD Drawings

With permission of the Contracting Officer, the Contractor may produce Preliminary As-Built Drawings indicating as-built conditions on Microstation conforming to TS CADD. The Contractor shall draw attention to all drawing changes by "clouding" the affected area.

1.3.2 Review and Approval

The originals plus one copy of the preliminary As-Built marked prints or, if authorized, one (1) set of CADD files on a CD and one (1) full-size set of the black-line CADD generated prints shall be delivered to the Contracting Officer 3 weeks prior to final inspection unless otherwise directed by the COR. In preparing its schedule, the Contractor shall allow at least one working day for Government review of every five typical construction sheets, and one working day for review of each complex mechanical and electrical sheet. The COR will notify the Contractor in writing of approval / disapproval. The Contractor shall not submit the Final Drawings until he receives the COR's letter approving the Preliminary Drawings. Upon approval, the original As-Built marked prints will be

returned to the Contractor.

1.3.3 Water and Sewer Systems

The Contractor shall have As-Built engineering plans for water and sewer systems approved and signed by a professional engineer registered in the State of Alaska, in accordance with current 18 AAC 80 and 18 AAC 72, respectively, such that the Alaska Department of Environmental Conservation will issue the required "Certificate to Operate".

1.4 DRAFTING STANDARDS

One copy of the original contract drawings on CD ROM disk(s) in Microstation format will be furnished to the Contractor at the beginning of the contract. The final As-Built submittal shall be presented in Microstation format on CD ROM disk(s) and on mylar prints as specified in paragraph FINAL SUBMITTAL. Final as-built drawings shall conform to standards and practices set forth in TS CADD. The original contract drawings shall be modified as may be necessary to correctly show all features of the project as it has been constructed by bringing the contract set into agreement with the preliminary As-Built prints and adding such drawings as may be necessary. Final as-built drawings shall not have "clouding". Upon completion they shall be delivered to the Contracting Officer, together with the preliminary As-Built marked prints, for final approval.

1.5 FINAL SUBMITTAL

The final submittal shall be made no later than 30 days following Contracting Officer approval of the preliminary As-Built marked prints. The final submittal shall be two copies on CD ROM disk(s) and one full size set of mylar prints. One full size blueline copy of the mylar prints shall also be provided for the Using Agency. All CD ROM disks and mylar prints will become the property of the Government upon final approval.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

-- End of Section --

SECTION 01760

SITE SECURITY AND CLASSIFIED MATERIALS SECURITY PLAN

PART 1 GENERAL

The Site Security and Classified Materials Security Plan describes the Contractor's responsibilities with regard to the security and classified materials of the site under construction.

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. DEPARTMENT OF DEFENSE (DOD)

DOD 5200.8-R (1991) Physical Security Program

PART 2 PRODUCTS

This specification contains the requirements for the Contractor to develop and implement a Site Security and Classified Materials Security Plan for the site under construction as well as for the handling of classified information/equipment it may require or generate.

PART 3 EXECUTION

3.1 SITE SECURITY PLAN

3.1.1 Coverage

The Contractor shall prepare and implement a Site Security Plan for the MDSTB site under its construction starting with the Notice to Proceed. This plan shall follow the provisions contained in Contractor Security Requirements, Appendix D, Installation Physical Security Plan, AR 190-59, AR 380-5, and AR 190-11. This security plan shall cover the physical security for tools, materials, personnel systems, software, equipment and site access, specifically perimeter fencing with secured gates for personnel and equipment access control, during all phases of construction as well as during the phasing of the Intrusion Detection System (IDS) requirements when the Missile Defense System Test Bed components arrive on site for installation. It shall cover both visual and verbal security. It shall also cover civil disturbance control measures conducted in cooperation with both civil and military authorities. This plan requires Government approval prior to implementation.

3.1.2 Site Personnel Training

Under the provisions of the site security plan, the Contractor shall be responsible for maintaining the order of its employees on the site. A one

day training course shall be held for all personnel involved with the site security. This course may be held in conjunction with the safety training.

3.1.3 Physical Security

Prior to the individual facility Beneficial Occupancy Dates (BODs) the contractor shall implement System Security Level (SSL) (A system in accordance with DOD 5200.8-R). SSLA security measures shall be taken at staging areas and at respective facility BODs as required, then gradually increasing security levels to fully implement SSLA by contract completion at BOD each facility, Government physical security forces will begin transition from the construction contractor to Government (User) control. This will involve an overlap period during which construction contractor under this contract will have to interface with the electronic security contractor as well as with Government security personnel who may be at the same site. This is necessary due to the specific functions of the respective organizations security forces. Government security forces will protect system components and information from other threats and unauthorized disclosure. It is anticipated that the number of contractor security personnel will decrease proportionally as the number of Government security personnel increases.

3.1.3.1 Vehicle Licensing

The Contractor must comply with all State of Alaska Laws pertaining to vehicle licensing and insurance requirements along with Installation Safety requirements to have access to Fort Greely. Contractors will be restricted to the construction site unless visiting construction agent management offices in the main Installation Area or in using the designated facility on the Installation for its use. Construction contractors will enter the installation through the Construction entrance on Richardson Highway South of Fort Greely Main Entrance.

3.1.3.2 Closed Installation Access

The Contractor shall prepare and implement much more restricted access control for Construction employees once the Fort Greely Installation has completed the task of becoming a closed installation. The construction contractor shall provide the Installation Provost Marshal with an access control roster of his employees along with those employees of all Sub-Contractors. Also, the Construction Contractor and his Sub-Contractors will have to comply with all requirements of vehicle registration. The Contractor shall prepare to comply with all badging requirements as described once construction reaches the BOD.

3.1.3.3 Property Security

The Construction Contractor has the responsibility to properly secure all property and building material required for GMD Program Contract. The installation will provide basic Law Enforcement services and investigations within jurisdiction authority and in coordination with Alaska State Police.

3.2 CLASSIFIED MATERIALS SECURITY PLAN

a. Provide a Standard Practice Procedure (SPP) which fully describes the security program, safeguards, and emergency procedures to be established for the protection of Government-furnished and Contractor-developed classified information, including drawings, specifications, operations manuals and similar documents, software, test results and equipment received or developed in conjunction with the project. It shall also detail the reception, storage and transfer of classified materials. The SPP shall be prepared in accordance with guidelines stipulated by the cognizant security compliance organization. The SSP shall require approval by the Government.

b. Develop a comprehensive security accreditation plan to demonstrate how the security of all computer systems have been accounted for in the Contractor's computer system design, and how satisfaction of each requirement will be explicitly demonstrated in the test program. This plan shall also identify any specific support equipment or software to be provided for demonstration of design compliance and/or system compliance with the planned security requirements. The plan shall require approval by the Government prior to implementation.

-- End of Section --

SECTION 01770

OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO 8879	(1986) Information Processing - Text and Office Systems - Standard Generalized Markup Language (SGML)

MILITARY STANDARD (MIL-STD

MIL-STD-2361	(Jan 1997) Digital Publications Development
MIL-STD-40051	(May 1999) Army Digital Publications Development Implementation Guide

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-19 Operation and Maintenance Manuals

O & M Manuals; GA

Special Support Equipment and Tools; GA

Initial Spares and Repair Parts; GA

Training Plan; GA

Audio-Video Training Documentation; GA

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 OPERATION AND MAINTENANCE (O & M) MANUALS

3.1.1 General Requirements

Validated copies of O & M Manuals listed in the SUBMITTALS Paragraph of the individual technical specification sections (Divisions 2 through 16) shall be submitted to the Contracting Officer for approval not later than 30 days prior to scheduled field training or contract completion when field training is not required. When on-site testing is required, one hard copy of the O & M manuals for the applicable system shall be submitted 30 days prior to scheduled on-site testing. Failure to submit manuals by this date will be considered cause to withhold any payments due the Contractor. Approval of manuals shall be obtained prior to scheduling systems operational tests or field training courses. Two copies of the manuals shall be provided in CD-ROM media and if not specified otherwise, six hard copies of all O & M manuals shall also be provided. All manual materials shall be durable, clearly printed or reproduced copies, not more than 8-1/2 x 11 inches in size, or neatly folded to that size without overlapping into the binding. Materials shall be indexed and bound in three-ring binders. Binders shall be marked or identified on the spine and front cover. Each manual shall contain a table of contents that provides pertinent contract information and contents of the manual. Sections shall be separated by heavy plastic dividers with tabs that identify the material in the section, such as catalog ordering information, drawings, instructions, and spare-parts data. Index sheets shall be provided for each section of the manual when warranted by the quantity of material included under separate tabs or dividers. Drawings, when required by other sections of these specifications, shall be folded, with the title block visible, and placed in plastic pockets with reinforced holes. Operation manuals and maintenance manuals provided in a common volume shall be clearly differentiated and shall be separately indexed.

3.1.2 O&M Manual Formatting Standards

All manuals shall be provided in Standard Generalized Markup Language (SGML)/XML also known as Level 3 Interactive Electronic Technical Manual (IETM) format. ISO 8879, MIL-STD-2361, and MIL-STD-40051 will be used for information and guidance. The complete O&M manual set shall be organized using the Construction Specification Institute division numbering system.

3.1.3 Systems O&M Manuals

The contractor shall develop system O&M manuals for all maintainable facility systems. The systems O&M manuals shall be organized as follows: Introduction; System Description; Theory of Operation; Startup and Shutdown Procedures; Operation; Preventive Maintenance; Trouble Analysis; Corrective Maintenance and Checkout; Special Tools and Equipment; Repair Parts List; Vendor Data; and Warranty Information. The systems O&M manuals shall make extensive use of schematics, diagrams, and drawings. Piping systems shall be individually identified and information shall be included as to the pipeline size, pipe schedule, pipe material, normal and maximum operating pressure and temperatures, testing pressures, and insulation thickness. Valves shall be identified as to the type, valve tag number, location, normal position, fail position, specification, manufacturer, model number, actuator model number, and solenoid model number. HVAC systems shall be individually identified and information shall be included concerning

balanced airflow requirements for all supply and return vents, ductwork sizes, insulation thickness, AHU airflow capacities, and damper settings. Electrical diagrams shall include the type, rating, and location of switches, motors, breakers, light fixtures, and receptacles.

3.1.4 Component/Equipment O&M Manuals

As a flow down from the system O&M manuals, the contractor shall provide the vendor's component or equipment operation and maintenance manuals.

3.1.5 Preventive Maintenance

The O&M plan shall identify the preventive maintenance tasks and frequencies for each item in the Master Equipment List based on the vendor's recommendations. In addition, the contractor shall identify the skills (trades) required and man-hours estimated to performing the preventive maintenance tasks. This information shall be provided electronically in database format compatible with the Prime Computerized Inventory and Maintenance System. The Prime Computerized Inventory and Maintenance System is based on the DOD Joint Computer-Aided Acquisition and Logistics System (JCALS).

3.1.6 Corrective Maintenance

The O&M plan shall identify the various levels and types of corrective maintenance that can be performed on-site utilizing the plan's recommended tools, test equipment, spare and repair parts, and maintainer's skills. The O&M plan shall identify estimated response times for the various equipment items and identify a generic procedure for the management of work orders.

3.1.7 Special Support Equipment and Tools

The O&M Manual shall identify and catalog any special support and test equipment and tools to support the operations and maintenance of the facilities. The contractor shall also provide the listed items to a location and time designated by the Contracting Officer, to support continuing operations and maintenance activities.

3.1.8 Initial Spares and Repair Parts

The contractor shall identify in the O&M manual initial spares and repair parts and consumables to support the operations and maintenance of the facilities.

3.1.9 Master Equipment List (MEL)

The contractor shall develop and include in the O&M plan a master equipment list that includes the manufacturer's name, part number, and serial/model number for installed equipment. This information shall be provided electronically in database format compatible with the Prime Computerized Inventory and Maintenance System. The Prime Computerized Inventory and Maintenance System is based on the DOD Joint Computer-Aided Logistics System (JCALS).

3.2 OPERATION AND MAINTENANCE TRAINING

The contractor shall provide training, printed instructional material, and training aids to be used with the facility operation and maintenance personnel. The Contracting Officer will provide a Training Report (developed by the A-E) to the Contractor to utilize in the development of the Contractors' Training Plan. The Training Plan shall identify by system and equipment the training to be accomplished, type of training, media to be used, duration of training, location of training, number and qualification of instructors, and schedule for training.

3.2.1 Informal Maintenance Training

Hands-on-training shall be provided by the Contractor, its subcontractor and/or equipment/system supplier personnel with demonstrated in-depth knowledge of the operation and maintenance requirements of the installed equipment or system. The contractor/subcontractor/supplier personnel shall demonstrate normal, abnormal, and emergency operation modes, and troubleshooting procedures as required to operations and maintenance personnel that are above the normal trade duties and skills. This training shall be accomplished during initial operation and start-up of the equipment and systems.

3.2.2 Formal Training

The Contractor shall provide qualified personnel for formal training of operations and maintenance personnel in the operation of the installed equipment and systems, performance of preventive maintenance and emergency repairs, performance of scheduled maintenance checks and procedures, and interpretation of O&M data such as wiring diagrams, control sequences, location of values and fire dampers, etc. Operator instructions provided by the Contractor shall include a description and on-site demonstration of controls and their operation, operating limitations of equipment and systems, safety devices and their function, and actual operating performance of all equipment and systems. Formal training shall consist of classroom and hands-on instructions. Except for factory training, classroom and hands-on training shall be conducted on the construction site. The Contractor shall provide the classroom, which can be an area in the newly constructed facility, including all desks, tables, chairs, projector systems, TV sets, and all other equipment or furnishings required to conduct training. Training sessions shall be identified as activities in the construction schedule. Training sessions shall be conducted between the hours of 7:30 a.m. and 4:00 p.m. on non-holiday Mondays through Fridays, unless approved by the Contracting Officer or his authorized representative.

3.2.3 Training Plan

At least six (6) months before the start of any formal, field, or factory training, the Contractor shall submit a training plan to the Contracting Officer for approval. After the review of the plan, the Contractor will conduct a training plan review conference to ensure a mutual understanding of the total training requirements and the Contractor's plan. After the

meeting, Contractor shall submit the final plan in six (6) paper copies and one electronic copy, incorporating all comments or revisions resulting from the review meeting. The training activities shall include separate nodes for submittal and approval of training plan and shall provide sufficient float time for any necessary resubmissions to preclude possible delays to the scheduled training. The training plan shall include the following:

a. A summary schedule, network diagram style, showing when individual training sessions are to be accomplished.

b. A day-to-day schedule time intervals, the major and subordinate subjects to be included in each session, with location and instructor.

c. Lesson plan for each session, including identification and qualifications of proposed instructors. A list of reference material, training aids, handouts, tools, etc., that will be provided by the Contractor.

The training materials will be reviewed by the Contracting Officer's Representative through the development cycle. Reviews shall be conducted at 30, 60, and 90% completion. The Contractor shall schedule for review cycles of no longer than one week in duration at the Contractors specified location.

3.2.4 Formal Field Training

The contractor shall provide the formal field classrooms and field hands-on training. The minimum number of instructor man-hours of instruction shall be as specified in the Training Plan. The instructors shall furnish the amount of instruction and training necessary to provide the proficiency to operations and maintenance personnel to effectively operate and maintain the facility equipment and systems.

3.2.5 Audio-Video Documentation of Training

The Contractor shall provide all equipment, materials, and trained personnel to visually and audibly record all field training, both classroom and hands-on sessions. The entire recording operation shall be professional quality suitable for use as refresher or to train new personnel. The Contracting Officer shall approve the equipment and personnel proposed to accomplish this task. Two (2) copies of each VHS tape, CD, or DVD shall be furnished to the Government. Manufacturer's factory training shall be recorded in a professionally prepared training video that uses the same equipment as the field training recordings and is acceptable to the Contracting Officer. All audio-video recordings shall be identified, indexed, and furnished in approved storage containers.

-- End of Section --

SECTION 01780

CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-18 Records

As-Built Record of Equipment and Materials; GA.

Four copies of the record listing the as-built materials and equipment incorporated into the construction of the project.

Warranty Management Plan; GA.

Four sets of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of each warranty. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Tags; GA.

Four record copies of the warranty tags showing the layout and design.

Final Clean-Up; GA.

Four copies of the listing of completed final clean-up items.

1.2 PROJECT RECORD DOCUMENTS

1.2.1 As-Built Drawings

As-built drawings shall be provided in accordance with provisions in Section 01720 AS-BUILT DRAWINGS.

1.2.2 As-Built Record of Equipment and Materials

The Contractor shall furnish four copies of preliminary record of equipment and materials used on the project 30 days prior to final inspection. This preliminary submittal will be reviewed and returned 30 days after final inspection with Government comments. Four sets of final record of equipment and materials shall be submitted 30 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used

1.2.3 Final Approved Shop Drawings

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed facility.

1.2.4 Construction Contract Specifications

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.2.5 Real Property Equipment

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished 30 days after transfer of the completed facility.

1.3 WARRANTY MANAGEMENT

Warranties associated with equipment installed as part of this contract shall be transferred to the Contracting Officer.

1.3.1 Equipment Warranty Management Plan

The Contractor shall develop an equipment warranty management plan which shall contain information relevant to the installed equipment. At least 30 days before a pre-warranty conference, time and place to be established by the Contracting Officer, the Contractor shall submit the equipment warranty management plan for Government approval. The equipment warranty management plan shall include all required actions and documents to assure that the Government receives all equipment warranties from the project to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The equipment warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the

equipment warranty management plan shall include, but shall not be limited to, the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

c. A list for each warranted equipment, item, feature of construction or system indicating:

1. Name of item.
2. Model and serial numbers.
3. Location where installed.
4. Name and phone numbers of manufacturers or suppliers.
5. Names, addresses and telephone numbers of sources of spare parts.
6. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
7. Cross-reference to warranty certificates as applicable.
8. Starting point and duration of warranty period.
9. Summary of maintenance procedures required to continue the warranty in force.
10. Cross-reference to specific pertinent Operation and Maintenance manuals.
11. Organization, names and phone numbers of persons to call for warranty service.
12. Typical response time and repair time expected for various warranted equipment.

d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

e. Procedure and status of tagging of all equipment covered by extended warranties.

f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.3.2 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of equipment warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue

construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.3.3 Contractor's Response to Equipment Warranty Service Requirements

Following oral or written notification by the Contracting Officer, the Contractor shall respond to equipment warranty service requirements and notify the warranty provider for repair or relief. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed.

1.3.4 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

a. Type of product/material_____.

b. Model number_____.

c. Serial number_____.

d. Contract number_____.

e. Warranty period_____from_____to_____.

f. Inspector's signature_____.

g. Warranty contact_____.

Address_____.

Telephone number_____.

h. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.4 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be cleaned. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

GROUND-BASED MIDCOURSE
DEFENSE PROGRAM

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --